

NN 605CA99C

Multi-Disciplinary Engineering & Technology
Services (NETS)

CONTRACT

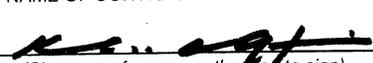
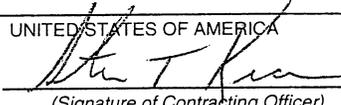
(12/22/04)

AWARD/CONTRACT		1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 350) ⇒	RATING DO-C9	PAGE OF 1	PAGES 67
2. CONTRACT NO. (Proc. Inst. Ident.) NO. NNG05CA99C		3. EFFECTIVE DATE 2/05/05	4. REQUISITION/PURCHASE REQUEST/PROJECT NO. See Clause B.5		
5. ISSUED BY: CODE 210.M NASA Goddard Space Flight Center Mail Code 210.3 Greenbelt Road Greenbelt, MD 20771		6. ADMINISTERED BY (If other than item 5) CODE			
7. NAME AND ADDRESS OF CONTRACTOR (No., street, city, county, State and ZIP) SGT, Inc. 7701 Greenbelt Road Suite 400 Greenbelt, MD 20770			CODE	ONWP5	FACILITY CODE
8. DELIVERY <input type="checkbox"/> FOB ORIGIN <input checked="" type="checkbox"/> OTHER		9. DISCOUNT FOR PROMPT N/A			
10. SUBMIT INVOICES (4 copies unless other-wise specified) TO THE ADDRESS SHOWN IN: ⇒ ITEM See Clause G.6					
11. SHIP TO/MARK FOR CODE Per Task Order - See Clause F.3		12. PAYMENT WILL BE MADE BY: CODE 155 Cost and Commercial Accounts Department Goddard Space Flight Center Greenbelt, Maryland 20771			
13. AUTHORITY FOR USING OTHER THAN FULL AND OPEN N/A <input type="checkbox"/> 10 U.S.C. 2304(c) <input type="checkbox"/> 41 U.S.C. 253(c)			14. ACCOUNTING AND APPROPRIATION DATA 4200036449		
15A. ITEM NO.	15B. SUPPLIES/SERVICES	15C. QTY	15D. UNIT	15E. UNIT PRICE	15F. AMOUNT
Clause C.1	Multi-Disciplinary Engineering and Technology Services (METS) Contract Type: CPAF, IDIQ COTR: Walter Flournoy, Code 590				See Clause B.2
15G. TOTAL AMOUNT OF CONTRACT ⇒					\$ See Clause B.2

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CONTRACTING OFFICER WILL COMPLETE ITEM 17 OR 18 AS APPLICABLE

17 <input checked="" type="checkbox"/> CONTRACTOR'S NEGOTIATED AGREEMENT (Contractor is required to sign this document and return <u>3 original</u> 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 (s) 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. <input type="checkbox"/> AWARD (Contractor is not required to sign this document.) Your offer on Solicitation Number _____ 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 document is necessary.	
19A. NAME AND TITLE OF SIGNER (Type or print) KAMAL S. GHAFARIAN, EXEC VP/COO		20A. NAME OF CONTRACTING OFFICER Steven T. Kramer	
19B. NAME OF CONTRACTOR	19C. DATE SIGNED	20B. UNITED STATES OF AMERICA	20C. DATE SIGNED
BY  (Signature of person authorized to sign)	12/22/04	BY  (Signature of Contracting Officer)	12/22/04

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**SECTION B OF NNG05CA99C
SUPPLIES OR SERVICES AND PRICE/COST**

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B.1 DELIVERABLE REQUIREMENTS (GSFC 52.211-90) (OCT 1988)

The Contractor shall provide the services to NASA's Goddard Space Flight Center as described in Section C of this contract and shall provide the following deliverable documentation and reports:

Item	Description	Reference	Schedule	Shipping Classification
1	Services and Deliverables In Accordance With Statement of Work and Task Orders	As defined in individual task orders.	As defined in individual task orders.	See Task Order
2	Task Plans	Clauses B.11, H.9	14 days after receipt of request for task plan	IV
3	Monthly Progress Reports	Clause C.2	15 th calendar day of each month	IV
4	Final Task Report	Clause C.2	Within 30 days of task completion	IV
5	Contractor's Self Evaluation	Clause G.5	As Specified in the Performance Evaluation Plan	IV
6	NASA Financial Management Reports	Clauses G.1, G.8	Monthly and Quarterly	IV
7	DD Form 1419 - DOD Industrial Plant Equipment Requisition	Clause G.9	30 days prior to approval need date	IV
8	Financial Report of NASA Property in the Custody of Contractors (NF 1018)	Clause G.11	Annual Report Due By October 15th and Final Report Due As Specified	IV
9	Safety & Health Reporting	Clause H.1 Clause 1852.223-70, & Clause H.7	As required	IV
10	GSFC Form 24-27 (LISTS Form) &	Clause H.4	As required	IV

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	NASA Form 531 (Name Check Request)			
11	LISTS Report	Clause H.4	10th calendar day of each month	IV
12	Equal Opportunity Reports	Clause I.1, 52.222-26	As Specified	IV
13	Insurance Notification	Clause I.1, 52.228-7	As required	IV
14	Subcontract Notification	See Clause I.1 52.244-2, Alt. I	30 days prior to subcontract award date	IV
15	IT Security Plan	See Clause I.1 1852.204-76	30 days after contract award	IV

(End of clause)

**B.2 MINIMUM/MAXIMUM AMOUNT OF SUPPLIES OR SERVICES (GSFC 52.216-90)
(DEC 2000)**

(a) The minimum amount of supplies or services that shall be ordered during the effective period of this contract is **\$1,000,000**. The maximum amount of supplies or services that may be ordered during the effective period of this contract is **\$250,000,000**.

(b) The minimum amount is reached when the sum of the dollar amounts of all ordered supplies or services, except for any adjustments made pursuant to the Limitation of Cost or Limitation of Funds clause, equals or exceeds the minimum amount stated in paragraph (a).

(c) The maximum amount is reached when the sum of the dollar amounts of all ordered supplies or services, except for any adjustments made pursuant to the Limitation of Cost or Limitation of Funds clause, equals the maximum amount stated in paragraph (a).

(d) The maximum amount, if reached, precludes the issuance of further orders for supplies or services under this contract. However, reaching the maximum amount does not preclude adjustments to the dollar amounts of existing placed orders, for actions that are within the scope of the placed orders, and which are made pursuant to existing contract authority, such as the Changes clause.

(End of clause)

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SUPPLIES OR SERVICES AND PRICE/COST

B.3 LIMITATION OF INDIRECT COSTS (GSFC 52.231-90) (FEB 1995)

a. Within each of the Contractor's fiscal years, the Contractor shall not charge or be reimbursed by the Government, under this or any other Government contract, for indirect costs in excess of the individual indirect expense dollars derived by the application of the following indirect cost ceiling rates to the appropriate base(s) set forth below.

<u>Indirect Cost</u>	<u>Base of Application</u>	<u>Percentage</u>					
		<u>CFY* 1</u>	<u>CFY 2</u>	<u>CFY 3</u>	<u>CFY 4</u>	<u>CFY 5</u>	<u>CFY 6</u>

*CFY (Contractor Fiscal Year) = October to September
(month) (month)

b. The limitations may be adjusted at the discretion of the Contracting Officer to the extent that increases to the Contractor's indirect costs are caused by:

(i) New or revised statutes and court decisions and/or written ruling or regulation by the Internal Revenue Service or any other taxing authority.

(ii) Wage determinations and/or regulations issued by the Department of Labor pursuant to the Service Contract Act of 1965, as amended.

c. A proposal for any adjustment under paragraph (b) must be in sufficient detail to establish that the cause of the amount of adjustment requested was solely due to the permitted conditions stated in the paragraph. It must be submitted no later than 60 days after the condition(s) become(s) known, or should have become known,

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to the Contractor. The amount of adjustment, if any, is at the discretion of the Contracting Officer and shall not be subject to the Disputes clause.

(End of clause)

B.4 ESTIMATED COST INCREASES

(a) ~~The requirements of this clause are in conjunction with the Limitation of Cost clause or the Limitation of Funds clause of this contract.~~

(b) The Contractor shall notify the Contracting Officer in writing when the Contractor has reason to believe that the total cost for performance of any individual task order, exclusive of any fee, will be either greater or substantially less than the total estimated cost stated in the task order. Notification shall not be delayed pending preparation of a proposal.

(c) A proposal is required to support a request for an increase in the estimated cost of a task order. The proposal should be submitted as soon as possible after the above notification but no later than 115 days before the incurred costs are expected to exceed the estimated cost. This will allow adequate time for the Government to evaluate the proposal and to mutually establish any increase in estimated cost with the Contractor.

(d) (1) The proposal shall be submitted in the following format unless some other format is directed or approved by the Contracting Officer:

Incurred costs to date
Projected cost to completion
Total cost at completion
Current negotiated estimated cost
Requested increase in estimated cost

(2) The "projected cost to completion" shall consist of the following "other than cost or pricing data" unless the Contracting Officer requests or approves the submittal of a greater or lesser amount of information:

(i) Elements of cost with supporting detail for estimated direct labor hours, direct and indirect rates, materials and subcontracts, and other elements.

(ii) Supporting explanation for the increases and projections, sufficient for the Government to understand the reasons for the increased estimated cost.

(End of clause)

**SECTION B OF NNG05CA99C
SUPPLIES OR SERVICES AND PRICE/COST**

B. 5 ORDERING (52.216-18) (OCT 1995)

(a) Any supplies and services to be furnished under this contract shall be ordered by issuance of delivery orders or task orders by the individuals or activities designated in the Schedule. Such orders may be issued from the award date of this contract through a five (5) year period afterwards (effective ordering period).

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

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

(End of clause)

B. 6 ORDER LIMITATIONS (52.216-19) (OCT 1995)

(a) Minimum order. When the Government requires supplies or services covered by this contract in an amount of less than \$1,000, the Government is not obligated to purchase, nor is the Contractor obligated to furnish, those supplies or services under the contract.

(b) Maximum order. The Contractor is not obligated to honor--
(1) Any order for a single item in excess of \$250,000,000;
(2) Any order for a combination of items in excess of \$250,000,000; or

(3) A series of orders from the same ordering office within 30 days that together call for quantities exceeding the limitation in subparagraph (1) or (2) above.

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

(d) Notwithstanding paragraphs (b) and (c) above, the Contractor shall honor any order exceeding the maximum order limitations in

**SECTION B OF NNG05CA99C
SUPPLIES OR SERVICES AND PRICE/COST**

paragraph (b), unless that order (or orders) is returned to the ordering office within 5 days after issuance, with written notice stating the

Contractor's intent not to ship the item (or items) called for and the reasons. Upon receiving this notice, the Government may acquire the supplies or services from another source.

(End of clause)

B.7 INDEFINITE QUANTITY (52.216-22) (OCT 1995)

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

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

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

(d) Any order issued during the effective period of this contract and not completed within that period shall be completed by the Contractor within the time specified in the order. The contract shall govern the Contractor's and Government's rights and obligations with respect to that order to the same extent as if the order were completed during the contract's effective period; provided, that the Contractor shall not be required to make any deliveries under this contract after **one (1) year from the end of the contract's effective ordering period.**

(End of clause)

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SUPPLIES OR SERVICES AND PRICE/COST

B. 8 PAYMENT FOR OVERTIME PREMIUMS (52.222-2) (JUL 1990)

(a) The use of overtime is authorized under this contract if the overtime premium cost does not exceed \$0 or the overtime premium is paid for work--

(1) Necessary to cope with emergencies such as those resulting from accidents, natural disasters, breakdowns of production equipment, or occasional production bottlenecks of a sporadic nature:

(2) By indirect-labor employees such as those performing duties in connection with administration, protection, transportation, maintenance, standby plant protection, operation of utilities, or accounting:

(3) To perform tests, industrial processes, laboratory procedures, loading or unloading of transportation conveyances' and operations in flight or afloat that are continuous in nature and cannot reasonably be interrupted or completed otherwise, or

(4) That will result in lower overall costs to the Government.

(b) Any request for estimated overtime premiums that exceeds the amount specified above shall include all estimated overtime for contract completion and shall--

(1) Identify the work unit: e.g., department or section in which the requested overtime will be used, together with present workload, staffing, and other data of the affected unit sufficient to permit the Contracting Officer to evaluate the necessity for the overtime;

(2) Demonstrate the effect that denial of the request will have on the contract delivery or performance schedule;

(3) Identify the extent to which approval of overtime would affect the performance or payments in connection with other Government contracts, together with identification of each affected contract; and

(4) Provide reasons why the required work cannot be performed by using multishift operations or by employing additional personnel.

SECTION B OF NNG05CA99C
SUPPLIES OR SERVICES AND PRICE/COST

(End of clause)

B.9 ESTIMATED COST AND AWARD FEE (18-52.216-85) (SEPTEMBER 1993)

The estimated cost of this contract is ~~\$(to be negotiated by task order)~~. The maximum available award fee, excluding base fee, if any, is ~~\$(to be negotiated by task order)~~. The base fee is \$0. Total estimated cost, base fee, and maximum award fee are ~~\$(to be negotiated by task order)~~.

(End of clause)

B.10 CONTRACT FUNDING (1852.232-81) (JUN 1990)

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this contract is \$TBD. This allotment is for 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.11 SUPPLEMENTAL TASK ORDERING PROCEDURES

(a) When the Government issues a request for a "task plan" to the Contractor in accordance with the Clause entitled "Task Ordering Procedure" of this contract, the Contractor shall prepare its estimate of the labor hours, labor categories, indirect costs, and other direct costs required to perform the task order requirements. The Contractor shall use the labor categories and labor and indirect rates that shall not exceed the rates listed in Attachment B to calculate the proposed estimated cost to perform the task order requirements.

**SECTION B OF NNG05CA99C
SUPPLIES OR SERVICES AND PRICE/COST**

(b) The Contractor agrees that only those appropriate labor and indirect cost rates, which may be less than but shall not exceed the rates found in the applicable Attachment B, shall be used to calculate the proposed estimated costs for all task orders issued in accordance with the "Task Ordering Procedure" clause of this contract. The Contractor's proposed approach/pricing of the representative tasks set forth in its proposal for award of this contract shall be used as reference by the Contracting Officer in negotiating tasks with the Contractor which are issued under this contract, but only to the extent portions of a representative task are relevant to portions of a task actually issued.

(c) The Government and Contractor agree that the maximum available award fee percentage specified in Attachment B shall be used to calculate the maximum award fee dollars on all task orders issued in accordance with the "Task Ordering Procedure" clause of this contract. The Government shall solely determine the earned award fee under the contract.

(End of Text)

**SECTION C OF NNG05CA99C
DESCRIPTION/SPECIFICATIONS/WORK STATEMENT**

C.1 SCOPE OF WORK (GSFC 52.211-91) (FEB 1991)

The Contractor shall provide the personnel, materials, and facilities, except as otherwise specified in this contract, necessary to perform the work and to furnish the items specified in Section B of this contract in accordance with the Statement of Work (Section J, Attachment A) and task orders issued hereunder.

(End of clause)

C.2 REPORTS OF WORK

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

(b) Final Task Report. The Contractor shall submit a final task report that summarizes the results of the entire task work, including recommendations and conclusions based on the experience and results obtained. The final task report should include tables, graphs, diagrams, curves, sketches, photographs, and drawings in sufficient detail to explain comprehensively the results achieved under the contract. The final task report shall also include the estimated final incurred cost for the task.

(c) The last page of the final report shall be a completed Standard Form (SF) 298, Report Documentation Page.

(d) Submission. The Contractor shall submit the report required by this clause as follows:

[M=Monthly, F=Final]

Copies	Report Type	Addressee	Mail Code
1	M,F	Contracting Officer	210.3
1	M,F	Contracting Officer's Technical Representative (COTR)	590
1	M,F	Task Monitor	See Task Order
1	F	Center for AeroSpace Information (CASI) Attn: Acquisitions Collections	

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DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

		Development Specialist 7121 Standard Drive Hanover, Maryland 21076-1320	
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(e) Submission dates. Monthly reports shall be submitted by the 15th day of the month following the month being reported. If the contract is awarded beyond the middle of a month, the first monthly report shall cover the period from award until the end of the following month. The final report for each task shall be submitted within 30 days after completion of the task.

(End of Text)

C.3 COMPUTER SOFTWARE AND DATA RIGHTS

Computer software and data related to the computer software such as its documentation and training materials are to be delivered with unlimited rights. No limited rights data or restricted computer software will be accepted for delivery, except for the following COTS computer software products:

TBD

(End of Text)

**SECTION D OF NNG05CA99C
PACKAGING AND MARKING**

D. 1 PACKAGING, HANDLING, AND TRANSPORTATION

(a) The Contractor shall comply with NPR 6000.1F, "Requirements for Packaging, Handling, and Transportation for Aeronautical and Space Systems, Equipment, and Associated Components", dated April 26, 1999, as may be supplemented by the statement of work or specifications of this contract, for all items designated as Class I, II, or III. ~~Transportation classes for software and hardware deliverable items~~ will be specified in each individual task order.

(b) The Contractor's packaging, handling, and transportation procedures may be used, in whole or in part, subject to the written approval of the Contracting Officer, provided--

(1) The Contractor's procedures are not in conflict with any requirements of this contract, and

(2) The requirements of this contract shall take precedence in the event of any conflict with the Contractor's procedures.

(c) The Contractor must place the requirements of this clause in all subcontracts for items that will become components of deliverable Class I, II, or III items.

(End of text)

**SECTION E OF NNG05CA99C
INSPECTION AND ACCEPTANCE**

E. 1 ACCEPTANCE--SINGLE LOCATION (GSFC 52.246-92) (SEPT 1989)

The Contracting Officer or authorized representative will accomplish acceptance at NASA/Goddard Space Flight Center. For the purpose of this clause, the Contracting Officer's Technical Representative named in this contract is the authorized representative. The Contracting Officer reserves the right to unilaterally designate a different Government agent as the authorized representative. The Contractor will be notified by a written notice or by a copy of the delegation of authority if a different representative is designated.

(End of clause)

E. 2 MATERIAL INSPECTION AND RECEIVING REPORT NOT REQUIRED (GSFC 52.246-94) (APR 1989)

NASA FAR Supplement clause 18-52.246-72 of this contract requires the furnishing of a Material Inspection and Receiving Report (MIRR) (DD Form 250 series) at the time of each delivery under this contract. However, a MIRR is not required for paper/electronic deliverables (i.e. reports).

(End of clause)

E. 3 INSPECTION SYSTEM (SUBCONTRACTS) (GSFC 52.246-100) (JULY 2000)

In performance of this contract, the Contractor shall impose inspection system requirements on subcontractors and suppliers to ensure the required quality of supplies or services. Monitoring of the Contractor's system for inspecting subcontractors will be accomplished through the combined efforts of NASA/GSFC personnel and the delegated Government agency. The authority and responsibility of the delegated agency will be defined in a letter of contract administration delegation.

(End of clause)

E. 4 INSPECTION SYSTEM RECORDS (GSFC 52.246-102) (OCT 1988)

The Contractor shall maintain records evidencing inspections in accordance with the Inspection clause of this contract for five years after delivery of all items and/or completion of all services called for by the contract.

(End of clause)

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E.5 INSPECTION OF SERVICES--COST-REIMBURSEMENT (52.246-5) (APR 1984)

(a) Definition. "Services," as used in this clause, includes services performed, workmanship, and material furnished or used in performing services.

(b) The Contractor shall provide and maintain an inspection system acceptable to the Government covering the services under this contract. Complete records of all inspection work performed by the Contractor shall be maintained and made available to the Government during contract performance and for as long afterwards as the contract requires.

(c) The Government has the right to inspect and test all services called for by the contract, to the extent practicable at all places and times during the term of the contract. The Government shall perform inspections and tests in a manner that will not unduly delay the work.

(d) If any of the services performed do not conform with contract requirements, the Government may require the Contractor to perform the services again in conformity with contract requirements, for no additional fee. When the defects in services cannot be corrected by reperformance, the Government may

- (1) require the Contractor to take necessary action to ensure that future performance conforms to contract requirements and
- (2) reduce any fee payable under the contract to reflect the reduced value of the services performed.

(e) If the Contractor fails to promptly perform the services again or take the action necessary to ensure future performance in conformity with contract requirements, the Government may (1) by contract or otherwise, perform the services and reduce any fee payable by an amount that is equitable under the circumstances or (2) terminate the contract for default.

(End of clause)

E.6 HIGHER-LEVEL CONTRACT QUALITY REQUIREMENT (52.246-11) (FEB 1999)

The Contractor shall comply with the higher-level quality standard selected below.

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(a) When conducting services at GSFC the contractor shall follow GSFC ANSI/ISO/ASQ Q9001-2000 quality management system (QMS) requirements as documented on-line in the GSFC QMS system. In addition, the contractor's quality system shall be compliant with ISO 9001. Additional quality requirements may also be specified in individual task order authorizations.

"Compliant" means that the contractor has defined, documented, and will continually implement during the term of the contract management-approved methods of operation that conform to the requirements given in the above-cited International Standard.

(b) Attachment G - Mission Assurance Plan (MAP)

(End of clause)

E.7 MATERIAL INSPECTION AND RECEIVING REPORT (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 an original copy and sufficient other copies to accomplish the following distribution:

(1) Via mail and marked "Advance Copy", one copy each to the Contracting Officer, the Contracting Officer's Technical Representative (if designated in the contract), and to the cognizant Administrative Contracting Officer, if any.

(2) Via mail, the original and 1 copy (unfolded) to the shipment address (delivery point) specified in Section F of this contract. Mark the exterior of the envelope "CONTAINS DD FORM 250". This must arrive prior to the shipment.

(3) With shipment in waterproof envelope (one copy) for the consignee.

(4) If the shipment address is not directly to the Goddard Space Flight Center (Greenbelt) or Goddard Space Flight Center (Wallops) central receiving areas, then one copy of the DD Form 250 must be provided (via mail) to one on the following addresses depending upon whether this contract is with GSFC Greenbelt or GSFC Wallops:

Receiving and Inspection (Code 239), Goddard Space Flight Center, Greenbelt, MD 20771.

Receiving and Inspection (Bldg. F16), Wallops Flight Facility, Wallops Island VA 23337.

(b) The Contractor shall prepare the DD Form 250 in accordance with NASA FAR Supplement 18-46.6. The Contractor shall enclose the copies

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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)

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DELIVERIES OR PERFORMANCE

F.1 PLACE OF PERFORMANCE--SERVICES (GSFC 52.237-92) (OCT 1988)

The services specified by this contract shall be performed at the following location(s): NASA/Goddard Space Flight Center, Other NASA resident offices in contractor facilities and SGT METS Offsite Facility (MOF) at 7501 Forbes Boulevard, Greenbelt, MD 20776.

(End of clause)

F.2 EFFECTIVE ORDERING PERIOD

The Government may issue tasks for a period of five (5) years from the effective date of the contract. Task Orders shall not be issued after expiration of this effective ordering period.

(End of Text)

F.3 SHIPPING INSTRUCTIONS--CENTRAL RECEIVING (GSFC 52.247-94) (JUL 1993)

Shipments of the items required under this contract shall be to:

Receiving Officer
Building 16W
Code 239
Goddard Space Flight Center
Greenbelt, Maryland 20771

Marked for:

Technical Officer (Name)	Code
Building	Room Contract No.
Item(s) No.	

The above to be specified in each task order.

Compliance with this clause is necessary to assure verification of delivery and acceptance and prompt payment.

(End of clause)

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F.4 STOP-WORK ORDER (52.242-15) (AUG 1989)--ALTERNATE I (APR 1984)

(a) The Contracting Officer may, at any time, by written order to the Contractor, require the Contractor to stop all, or any part, of the work called for by this contract for a period of 90 days after the order is delivered to the Contractor, and for any further period to which the parties may agree. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Within a period of 90 days after a stop-work order is delivered to the Contractor, or within any extension of that period to which the parties shall have agreed, the Contracting Officer shall either--

(1) Cancel the stop-work order; or

(2) Terminate the work covered by the order as provided in the Termination clause of this contract.

(b) If a stop-work order issued under this clause is canceled or the period of the order or any extension thereof expires, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment in the delivery schedule, the estimated cost, the fee, or a combination thereof, and in any other terms of the contract that may be affected.

(1) The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this contract; and

(2) The Contractor asserts its right to the adjustment within 30 days after the end of the period of work stoppage; provided, that, if the Contracting Officer decides the facts justify the action, the Contracting Officer may receive and act upon the claim submitted at any time before final payment under this contract.

(c) If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of the Government, the Contracting Officer shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.

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(d) If a stop-work order is not canceled and the work covered by the order is terminated for default, the Contracting Officer shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.

(End of clause)

F.5 F.O.B. DESTINATION (52.247-34) (NOV 1991)

(a) The term "f.o.b. destination," as used in this clause, means--

(1) Free of expense to the Government, on board the carrier's conveyance, at a specified delivery point where the consignee's facility (plant, warehouse, store, lot, or other location to which shipment can be made) is located, and

(2) Supplies shall be delivered to the destination consignee's wharf (if destination is a port city and supplies are for export), warehouse unloading platform, or receiving dock, at the expense of the Contractor. The Government shall not be liable for any delivery, storage, demurrage, accessorial, or other charges involved before the actual delivery (or "constructive placement" as defined in carrier tariffs) of the supplies to the destination, unless such charges are caused by an act or order of the Government acting in its contractual capacity. If rail carrier is used, supplies shall be delivered to the specified unloading platform of the consignee. If motor carrier (including "piggyback") is used, supplies shall be delivered to truck tailgate at the unloading platform of the consignee, except when the supplies delivered meet the requirements of Item 568 of the National Motor Freight Classification for "heavy or bulky freight". When supplies meeting the requirements of the referenced Item 568 are delivered, unloading (including movement to the tailgate) shall be performed by the consignee, with assistance from the truck driver, if requested. If the Contractor uses rail carrier or freight forwarder for less than carload shipments, the Contractor shall ensure that the carrier will furnish tailgate delivery, when required, if transfer to truck is required to complete delivery to consignee.

(b) The Contractor shall--

(1) (i) Pack and mark the shipment to comply with contract specifications; or

(ii) In the absence of specifications, prepare the shipment in conformance with carrier requirements;

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(2) Prepare and distribute commercial bills of lading;

(3) Deliver the shipment in good order and condition to the point of delivery specified in the contract;

(4) Be responsible for any loss of and/or damage to the goods occurring before receipt of the shipment by the consignee at the delivery point specified in the contract;

(5) Furnish a delivery schedule and designate the mode of delivering carrier; and

(6) Pay and bear all charges to the specified point of delivery.

(End of clause)

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G.1 FINANCIAL MANAGEMENT REPORTING (GSFC 52.242-90)(FEB 2004)

(a) Requirements. This clause provides the supplemental instructions referred to in NASA FAR Supplement (NFS) clause 1852.242-73. The NFS clause and NASA Procedural Requirements (NPR) 9501.2D, "NASA Contractor Financial Management Reporting", establish report due dates and other financial management reporting requirements. NPR 9501.2D permits withholding of payment for noncompliance.

(b) Supplemental instructions. (1) Monthly (NF 533M) reports are required. Quarterly (NF 533Q) reports are also required. The reporting structure shall be in accordance with Attachment C of this contract.

(2) As stated in NPR 9501.2D, NASA strongly encourages electronic contractor cost reporting. The preferred formats are Excel and Adobe. Contact the Contracting Officer for any E-Mail addresses that are not provided or which become noncurrent.

Distribution shall be as follows:

Contracting Officer, Code 210.3

Contracting Officer's Technical Representative, Code 590

Resources Analyst, Code 590 (Electronic Format via CD
and Hardcopy for The Summary Sheets)

Regional Finance Office Cost Team, Code 155
E-Mail: rfocateam@listserv.gsfc.nasa.gov

Administrative Contracting Officer (if delegated)

(c) Web sites. (1) NPR 9501.2D, "NASA Contractor Financial Management Reporting":

[http://nodis3.gsfc.nasa.gov/displayDir.cfm?Internal_ID=N_PR_9501_002D
&page_name=main](http://nodis3.gsfc.nasa.gov/displayDir.cfm?Internal_ID=N_PR_9501_002D&page_name=main)

(2) NF 533 Tutorial: (for training purposes only)

<http://genesis.gsfc.nasa.gov/nf533/nf533.htm>

(End of clause)

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G.2 CONTRACTOR USE OF GSFC LIBRARY (GSFC 52.245-90) (AUG 1993)

The Contractor's professional employees performing work under this contract are granted borrowing privileges at the Goddard Space Flight Center (GSFC) Library.

(a) The Contractor shall establish procedures to account for borrowed materials and to ensure their timely return. "Timely return" means prior to the expiration of the borrowing period, prior to the termination of employment of the particular employee, or prior to the expiration of this contract, whichever comes first.

(b) The Contractor shall initiate borrowing privileges for its employees by contacting the GSFC Librarian. The Librarian will require the Contractor to provide the name and title of the company official responsible for ensuring compliance with (a) above. The responsible official will be required to indicate the level of control for the issuance of Library charge plates and whether the countersignature of the responsible company official will be required on Goddard Library Card Applications. The GSFC Librarian may impose additional information requirements if Library privileges are requested for employees that do not have permanent GSFC badges.

(c) The Contractor shall be responsible for all items lost, destroyed or not returned. Such items shall be immediately replaced by the Contractor at no cost to the Government. The GSFC Librarian may revoke library privileges at any time during the performance of the contract if the Contractor fails to comply with this clause or is experiencing an inordinate amount of loss or destruction of library materials. Discontinuance of library privileges shall not entitle the Contractor to an increase in the cost or price for contract performance or to any other adjustment to the contract.

(End of clause)

G.3 PROPERTY CLAUSE APPLICABILITY--ON-SITE AND OFF-SITE (GSFC 52.245-96)(SEP 1998)

(a) Performance of this contract requires that contractor personnel and any furnished and/or acquired government property be located at both Government controlled and managed premises (on-site) and at contractor controlled and managed premises (off-site). The requirements for control and accountability of government property differ depending upon the location of the property. The

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applicability of the clauses in this contract to on-site and to off-site locations is indicated below.

(b) Clauses applicable to both on-site and off-site locations.

FAR clause 52.245-5, "Government Property (Cost Reimbursement, Time-and-Material, or Labor-Hour Contracts" except that para (e) does not apply to on-site locations.

NASA FAR Supplement clause 1852.245-70, "Contractor Requests for Government-Owned Equipment".

GSFC clause 52.245-92, "Repair or Replacement of Government Property--Special Conditions", if included.

GSFC clause 52.245-97, "Contractor Acquired Property--NASA Conditions".

(c) Clauses applicable only to off-site locations.

NASA FAR Supplement clause 1852.245-73, "Financial Reporting of NASA Property in the Custody of Contractors"

NASA FAR Supplement clause 1852.245-76, "List of Government-Furnished Property", if included.

(d) Clauses applicable only to on-site locations.

NASA FAR Supplement clause 1852.245-71, "Installation-Accountable Government Property (Alternate I)".

NASA FAR Supplement clause 18-52.245-77, "List of Installation-Accountable Property and Services".

GSFC clause 52.245-93, "Reports of Contractor Acquired Government Property"

(End of clause)

**G.4 CONTRACTOR ACQUIRED PROPERTY--NASA CONDITIONS (GSFC 52.245-97)
(SEP 1998)**

NASA FAR Supplement 1845.502-70 establishes general and specific conditions that apply to this contract for various categories of contractor acquired property.

(End of clause)

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G.5 AWARD FEE FOR SERVICE CONTRACTS (1852.216-76)(JUNE 2000)

(a) The contractor can earn award fee from a minimum of zero dollars to the maximum stated in NASA FAR Supplement clause 1852.216-85, "Estimated Cost and Award Fee" in this contract.

(b) Beginning 6 months after the effective date of this contract, the Government shall evaluate the Contractor's performance every 6 months to determine the amount of award fee earned by the contractor during the period. The Contractor may submit a self-evaluation of performance for each evaluation period under consideration. These self-evaluations will be considered by the Government in its evaluation. The Government's Fee Determination Official (FDO) will determine the award fee amounts based on the Contractor's performance in accordance with the ESES Performance Evaluation Plan. The plan may be revised unilaterally by the Government prior to the beginning of any rating period to redirect emphasis.

(c) The Government will advise the Contractor in writing of the evaluation results. The Cost and Commercial Accounts Department, Code 155, will make payment based on issuance of a unilateral modification by contracting officer.

(d) After 85% of the potential award 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.

(e) The amount of award fee which can be awarded in each evaluation period is limited to the amounts set forth in the Performance Evaluation Plan. Award fee which is not earned in an evaluation period cannot be reallocated to future evaluation periods.

(f)(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

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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 be made prior to the first award fee determination by the Government.

(g) Award fee determinations are unilateral decisions made solely at the discretion of the Government.

(End of clause)

G.6 SUBMISSION OF VOUCHERS FOR PAYMENT (18-52.216-87)(MAR 1998)

(a) The designated billing office for cost vouchers for purposes of the Prompt Payment clause of this contract is indicated below. Public vouchers for payment of costs shall include a reference to the number of this contract.

(b)(1) If the contractor is authorized to submit interim cost vouchers directly to the NASA paying office, the original voucher and one copy should be submitted to:

Cost and Commercial Accounts Department
Code 155
Goddard Space Flight Center
Greenbelt, Maryland 20771

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

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

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

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(1) One original and one copy Standard Form (SF)1034, SF 1035, or equivalent Contractor's attachment to the Auditor.
**Defense Contract Audit Agency, Columbia Branch Office, One Mall North
10025 Governor Warfield Parkway, Suite 200, Columbia, MD 21044-3329.
Attention: Mr. Thomas Trefry, Branch Manager, 410-964-2060**

(2) (Reserved)

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

(d) Public vouchers for payment of fee shall be prepared similarly to the procedures in paragraphs (b) or (c) of this clause, whichever is applicable, and be forwarded to the Contracting Officer.

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)

G.7 DESIGNATION OF NEW TECHNOLOGY REPRESENTATIVE AND PATENT REPRESENTATIVE (1852.227-72) (JULY 1997)

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

Title	Office Code	Address (including zip code)
New Technology Representative	504	Goddard Space Flight Center Greenbelt, MD 20771
Patent Representative	503	Goddard Space Flight Center Greenbelt, MD 20771

(b) Reports of reportable items, and disclosure of subject inventions, interim reports, final reports, utilization reports, and other reports required by the clause, as well as any correspondence

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

(End of clause)

G.8 NASA CONTRACTOR FINANCIAL MANAGEMENT REPORTING (1852.242-73) (JUL 2000)

(a) The Contractor shall submit NASA Contractor Financial Management Reports on NASA Forms 533 in accordance with the instructions in NASA Procedures and Guidelines (NPR) 9501.2D, NASA Contractor Financial Management Reporting, and on the reverse side of the forms, as supplemented in the Schedule of this contract. The detailed reporting categories to be used, which shall correlate with technical and schedule reporting, shall be set forth in the Schedule. Contractor implementation of reporting requirements under this clause shall include NASA approval of the definitions of the content of each reporting category and give due regard to the Contractor's established financial management information system.

(b) Lower level detail used by the Contractor for its own management purposes to validate information provided to NASA shall be compatible with NASA requirements.

(c) Reports shall be submitted in the number of copies, at the time, and in the manner set forth in the Schedule or as designated in writing by the Contractor Officer. Upon completion and acceptance by NASA of all contract line items, the Contracting Officer may direct the Contractor to submit Form 533 reports on a quarterly basis only, report only when changes in actual cost incur, or suspend reporting altogether.

(d) The Contractor shall ensure that its Form 533 reports include accurate subcontractor cost data, in the proper reporting categories, for the reporting period.

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(e) If during the performance of this contract NASA requires a change in the information or reporting requirements specified in the Schedule, or as provided for in paragraph (a) or (c) of this clause, the Contracting Officer shall effect that change in accordance with the Changes clause of this contract.

(End of clause)

G.9 CONTRACTOR REQUESTS FOR GOVERNMENT-OWNED EQUIPMENT (1852.245-70) (JUL 1997)

(a) "Equipment," as used in this clause, means commercially available items capable of stand-alone use, including those to be acquired for incorporation into special test equipment or special tooling.

(b) (1) Upon determination of need for any Government-owned equipment item for performance of this contract, the contractor shall provide to the contracting officer a written request justifying the need for the equipment and the reasons why contractor-owned property cannot be used, citing the applicable FAR or contract authority for use of Government-owned equipment. Equipment being acquired as a deliverable end item listed in the contract or as a component for incorporation into a deliverable end item listed in the contract is exempt from this requirement.

(2) The contractor's request shall include a description of the item in sufficient detail to enable the Government to screen its inventories for available equipment or to purchase equipment. For this purpose, the contractor shall (i) prepare a separate DD Form 1419, DOD Industrial Plant Equipment Requisition, or equivalent format, for each item requested and (ii) forward it through the contracting officer to the Industrial Property Officer at the cognizant NASA installation at least 30 days in advance of the date the contractor intends to acquire the item. Multiple units of identical items may be requested on a single form. Instructions for preparing the DD Form 1419 are contained in NASA FAR Supplement 1845.7102. If a certificate of nonavailability is not received within that period, the contractor may proceed to acquire the item, subject to having obtained contracting officer consent, if required, and having complied with any other applicable provisions of this contract.

(c) Contractors who are authorized to conduct their own screening using the NASA Equipment Management System (NEMS) and other Government sources of excess property shall provide the evidence of screening results with their request for contracting officer consent.

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Requests to purchase based on unsuitability of items found shall include rationale for the determined unsuitability.

(End of clause)

G. 10 INSTALLATION-ACCOUNTABLE GOVERNMENT PROPERTY (1852.245-71)(JUN 1998)

(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 following user responsibilities:

- (1) Notify the cognizant property custodian, COTR, and the Installation Security Officer immediately if theft of Government property is suspected or property cannot be located
- (2) Identify Government property equipment that is no longer considered necessary for performance of the contract.
- (3) Ensure that equipment is turned in to the Property Disposal Officer through the cognizant property custodian when no longer needed. This is the only acceptable procedure for disposal of Government property.
- (4) Do not relocate Government property within Government premises or remove Government property from Government premises without written approval.

The Contractor shall establish and adhere to a system of written procedures for compliance with the user responsibilities. Such procedures must include holding employees liable, when appropriate, for loss, damage, or destruction of Government property. The procedures must ensure that employees use, or allow the use of, Government property, including property leased to the Government, only for government purposes and that Government property is protected and conserved.

(b)(1) The official accountable record keeping, 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:

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(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.

(End of clause)

G.11 FINANCIAL REPORTING OF NASA PROPERTY IN THE CUSTODY OF CONTRACTORS (1852.245-73) (OCT 2003)

(a) The Contractor shall submit annually a NASA Form (NF) 1018, NASA Property in the Custody of Contractors, in accordance with the provisions of 1845.505-14, the instructions on the form, subpart 1845.71, and any supplemental instructions for the current reporting period issued by NASA.

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

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(2) The Contractor shall mail the original signed NF 1018 directly to the Goddard Space Flight Center (GSFC), General Accounting Department, Property and Reporting Team, Code 157, Greenbelt, MD 20771, unless the Contractor uses the NF 1018 Electronic Submission System (NESS) for report preparation and submission.

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

Goddard Space Flight Center, Property Management Branch, Code 235, Greenbelt, MD 20771--unless the Contractor uses the NF 1018 Electronic Submission System (NESS) for report preparation and submission.

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

(2) The Contracting Officer may, in NASA's interest, withhold payment until a reserve not exceeding \$25,000 or 5 percent of the amount of the contract, whichever is less, has been set aside, if the Contractor fails to submit annual NF 1018 reports in accordance with

**SECTION G OF NNG05CA99C
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1845.505-14 and any supplemental instructions for the current reporting period issued by NASA. Such reserve shall be withheld until the Contracting Officer has determined that NASA has received the required reports. The withholding of any amount or the subsequent payment thereof shall not be construed as a waiver of any Government right.

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

(End of clause)

G.12 LIST OF INSTALLATION-ACCOUNTABLE PROPERTY AND SERVICES (1852.245-77) (JUL 1997)

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.

(a) Office space, work area space, and utilities. Government telephones are available for official purposes only; pay telephones are available for contractor employees for unofficial calls.

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

(1) Equipment to be made available is listed in each individual task order, if applicable. The Government retains accountability for this property under the clause at 1852.245-71, Installation-Accountable Government Property, regardless of its authorized location.

(2) 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.

(3) 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.

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(c) Supplies from stores stock.

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

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

(f) Installation service facilities: Goddard Library

(g) Medical treatment of a first-aid nature for Contractor personnel injuries or illnesses sustained during on-site duty.

(h) Cafeteria privileges for Contractor employees during normal operating hours.

(i) Building maintenance for facilities occupied by Contractor personnel.

(j) Moving and hauling for office moves, movement of large equipment, and delivery of supplies. Moving services shall be provided on-site, as approved by the Contracting Officer.

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

(End of clause)

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H.1 SECTION H CLAUSES INCORPORATED BY REFERENCE

- (1852.208-81) RESTRICTIONS ON PRINTING AND DUPLICATING (OCT 2001)
- (1852.223-70) SAFETY AND HEALTH (APR 2002)
- (1852.223-75) MAJOR BREACH OF SAFETY OR SECURITY (FEB 2002)
- (1852.228-72) CROSS WAIVER OF LIABILITY FOR SPACE SHUTTLE SERVICES
(SEPT 1993)
- (1852.228-76) CROSS WAIVER OF LIABILITY FOR SPACE STATION ACTIVITIES
(DEC 1994)
- (1852.242-72) OBSERVANCE OF LEGAL HOLIDAYS (AUG 1992)--ALTERNATE II
(OCT 2000)
- (1852.244-70) GEOGRAPHIC PARTICIPATION IN THE AEROSPACE PROGRAM
(APRIL 1985)

(End of By Reference Section)

H.2 HANDLING OF DATA (GSFC 52.203-90) (JAN 1995)

(a) In the performance of this contract, it is anticipated that the Contractor may have access to, be furnished, or use the following categories of data (which may be technical data, computer software, administrative, management information, or financial, including cost or pricing):

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

(2) Government data, the use and dissemination of which, the Government intends to control.

(b) In order to protect the interests of the Government and the owners, licensors and licensees of such data, the Contractor agrees, with respect to any such third party or Government data that is either marked with a restrictive legend, specifically identified in this contract, or otherwise identified in writing by the Contracting Officer as being subject to this clause, to:

(1) Use, disclose, and reproduce such data only to the extent necessary to perform the work required under this contract;

(2) Allow access to such data only to those of its employees that require access for their performance under this contract;

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(3) Preclude access and disclosure of such data outside the Contractor's organization; and

(4) Return or dispose of such data, as the Contracting Officer may direct, when the data is no longer needed for contract performance.

(c) The Contractor agrees to inform and instruct its employees of its and their obligations under this clause and to appropriately bind its employees contractually to comply with the access, use, disclosure, and reproduction provisions of this clause.

(d) In the event that data includes a legend that the Contractor deems to be ambiguous or unauthorized, the Contractor may inform the Contracting Officer of such condition. Notwithstanding such a legend, as long as such legend provides an indication that a restriction on use or disclosure was intended, the Contractor shall treat such data pursuant to the requirements of this clause unless otherwise directed, in writing, by the Contracting Officer.

(e) Notwithstanding the above, the Contractor shall not be restricted in use, disclosure, and reproduction of any data that:

(1) Is, or becomes, generally available or public knowledge without breach of this clause by the Contractor;

(2) Is known to, in the possession of, or is developed by the Contractor independently of any disclosure of, or without reference to, proprietary, restricted, confidential, or otherwise protectible data under this clause;

(3) Is rightfully received by the Contractor from a third party without restriction;

(4) Or is required to be produced by the Contractor pursuant to a court order or other Government action.

If the Contractor believes that any of these events or conditions that remove restrictions on the use, disclosure, and reproduction of the data apply, the Contractor shall promptly notify the Contracting Officer of such belief prior to acting on such belief, and, in any event, shall give notice to the Contracting Officer prior to any unrestricted use, disclosure, or reproduction of such data.

(End of clause)

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H. 3 LIMITED RELEASE OF CONTRACTOR CONFIDENTIAL BUSINESS INFORMATION (GSFC 52.203-91) (JUN 2002)

(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 preaward 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) 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)

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SPECIAL CONTRACT REQUIREMENTS**

H.4 ONSITE CONTRACTOR PERSONNEL—IDENTIFICATION, REPORTING, AND CHECKOUT PROCEDURES (GSFC 52.204-99) (AUG 2003)

(a) The Contractor shall designate a representative (point of contact) for the purposes of this clause. The Contractor shall notify the GSFC Security Division, Code 240, Attention: Locator and Information Tracking System (LISTS) Manager, and the Contracting Officer's Technical Representative (COTR) of the designated representative within 15 calendar days of award of this contract. The GSFC maintained LISTS contains work and home location and contact information for personnel that have permanent NASA/GSFC identification badges. The Contractor may contact the LISTS Manager, Tel 301-286-2306 for assistance regarding LISTS.

(b) The Contractor must apply for permanent NASA/GSFC identification badges for those employees who will be employed by the contractor onsite for at least six months. The GSFC Security Division will consider permanent identification badges for other employees of the Contractor on a case by case basis, such as employees that are not resident onsite, but must frequently visit. For each employee, the Contractor must complete and submit a GSFC Form 24-27, "LISTS Form", and a NASA Form 531, "Name Check Request". The forms are available from GSFC Stores Stock or online via NASA and GSFC systems. The GSFC Form 24-27 must be signed by the COTR or the Contracting Officer. The COTR will resolve any housing or access issues, review the forms for accuracy and completeness, and return the signed forms to the Contractor. The Contractor shall forward the form(s) to the GSFC Security Division, Code 240, for the necessary checks, issuance of identification badges, and subsequent data entry into the LISTS. Arrangements for fingerprinting employees will be handled by representatives of the GSFC Security Division's ID Section.

(c) The Contractor shall submit an annotated LISTS Report each month. The GSFC LISTS Manager will furnish a LISTS print-out to the Contractor no later than the end of each month. The Contractor shall annotate this provided report to correct and update the information as follows:

(1) Draw a line through the names of employees who are no longer employed by the contractor or that no longer work onsite under the contract, and;

(2) Make handwritten changes to any other incorrect data.

The annotated LISTS Report shall be separately submitted to the GSFC Security Division, Code 240, Attention: LISTS Manager, and to the COTR by the 10th calendar day of the month.

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(d) The Contractor shall ensure that all personnel who have NASA/GSFC issued identification, keys or other property who leave its employ or that no longer work onsite, process out through the GSFC Security Division, Code 240. Employees must return all GSFC issued identification and any Government property no later than the last day of their employment. The Contractor shall establish appropriate procedures and controls to ensure this is accomplished. Failure to comply may result in the exercise of Government rights to limit and control access to Government premises, including denial of access and invalidation of NASA issued badges and identification.

(End of clause)

H.5 GOVERNMENT PREMISES—PHYSICAL ACCESS AND COMPLIANCE WITH PROCEDURES (GSFC 52.211-95) (DEC 2003)

(a) (1) The Contractor must apply for permanent NASA/GSFC Identification Badges for those employees that will be employed by the Contractor and that will be resident for at least six months at GSFC or at locations controlled by GSFC, such as GSFC leased space. Other personnel may be issued a temporary badge. All personnel must conspicuously display the GSFC badge at, or above, the waistline. Refer to GSFC clause 52.204-99, "Onsite Contractor Personnel—Identification, Reporting, and Checkout Procedures" for permanent Identification Badge issuance procedures.

(2) Visits by foreign nationals are restricted and must be necessary for the performance of the contract and concurred with by the Contracting Officer or by the Contracting Officer's Technical Representative. Approval of such visits must be approved in advance in accordance with GMI 1680.1.

(3) Access to the GSFC may be changed or adjusted in response to threat conditions or special situations.

(b) While on Government premises, the Contractor shall comply with requirements governing the conduct of personnel and the operation of the facility. These requirements are set forth in NASA-wide or installation directives, procedures, handbooks and announcements. The following cover many of the requirements:

- (1) Coordinated Harassment/Discrimination Inquiry Guidelines
<<http://internal.gsfc.nasa.gov/directives/security.html>>
- (2) GMI 1040.5, GSFC Emergency Management Program
- (3) GMI 1040.6, GSFC Emergency Management Plan (Greenbelt)
- (4) GMI 1152.9, Facilities Coordination Committee
- (5) GHB 1600.1, Security Manual

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- (6) GMI 1680.1, Visits of Foreign Nationals to GSFC
- (7) GMI 1700.2, GSFC Health and Safety Program
- (8) GMI 6730.6, Vehicle Reserved Parking
- (9) GPD 8715.1, GSFC Safety Policy
- (10) GPD 8870.1, Environmental Program Management
- (11) GHB 1790.1, Chemical Hygiene Plan
- (12) GPG 1800.1, GSFC Smoking Guidelines
- (13) GHB 1860.1, Radiation Protection--Ionizing Radiation
- (14) GHB 1860.2, Radiation Safety Handbook
- (15) GHB 1860.3, Radiation Safety--Laser
- (16) GHB 1860.4, Radiation Safety--Ultraviolet and High Intensity Radiation
- (17) GPG 2570.1, Radio Frequency Equipment Licensing
- (18) GPG 8715.1, Processing of NASA Safety Reporting System (NSRS) Incident Reports

Copies of the current issuances may be obtained at http://gdms.gsfc.nasa.gov/gdms/plsql/menu_guest or from the Contracting Officer. The above list may be modified by the Contracting Officer to include additional issuances pertaining to the conduct of personnel and the operation of the facility.

(c) The Contractor may not use official Government mail (indicia or "eagle" mail). Contractors found in violation could be liable for a fine of \$300 per piece of indicia mail used. However, the Contractor is allowed to use internal GSFC mail to the extent necessary for purposes of the contract.

(End of clause)

H. 6 REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF OFFEROR (GSFC 52.215-90) (NOV 1999)

In accordance with FAR 15.204-1(b), the completed and submitted "Representations, Certifications, and Other Statements of Offeror", are incorporated by reference in this resulting contract.

(End of clause)

H. 7 SAFETY AND HEALTH--ADDITIONAL REQUIREMENTS (GSFC 52.223-91) (OCT 2002)

(a) Other safety and health requirements. In addition to compliance with all Federal, state, and local laws as required by paragraph (b) of NFS clause 18-52.223-70, the Contractor shall comply with the following:

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Quarterly health and safety report specifying incidents, disabling injuries, lost work days incident rate, days lost, property damage cost, manhours worked/month, and total employees. Template available at <http://safety1st.gsfc.nasa.gov> under Contractor Safety.

(b) Reporting. The immediate notification and prompt reporting required by paragraph (d) of NFS clause 1852.223-70 shall be to the Goddard Space Flight Center Safety and Environmental Branch, Code 205.2, Tel 301-286-2281 and to the Contracting Officer. This should be a verbal notification and confirmed by FAX or E-Mail. This notification is also required for any unsafe or environmentally hazardous condition associated with Government-owned property that is provided or made available for the performance of the contract.

(End of clause)

H. 8 LIMITATION OF FUTURE CONTRACTING (1852.209-71) (DEC 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, in general terms, is that:

1. The contractor may be tasked to develop statements of work and/or specifications, which may be used in subsequent, competitive acquisitions, and
2. The contractor may require access to other NASA contractor data.

(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 and such specifications or statements of work 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

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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 use them to compete with those other companies.

(End of clause)

H.9 TASK ORDERING PROCEDURE (1852.216-80) (OCTOBER 1996)

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

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

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

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

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

(c) Within 14 calendar days after receipt of the Contracting Officer's request, the Contractor shall submit a task plan conforming to the request.

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

(1) Date of the order.

(2) Contract number and order number.

(3) Functional description of the work identifying the objectives or results desired from the task order, including special

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instructions or other information necessary for performance of the task.

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

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

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

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

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

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

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

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

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

(End of clause)

H.10 EXPORT LICENSES (1852.225-70) (FEB 2000)

(a) The Contractor shall comply with all U.S. export control laws and regulations, including the International Traffic in Arms Regulations (ITAR), 22 CFR Parts 120 through 130, and the Export Administration Regulations (EAR), 15 CFR Parts 730 through 799, in the performance of this contract. In the absence of available license exemptions/exceptions, the Contractor shall be responsible for obtaining the appropriate licenses or other approvals, if required, for exports of hardware, technical data, and software, or for the provision of technical assistance.

(b) The Contractor shall be responsible for obtaining export licenses, if required, before utilizing foreign persons in the performance of this contract, including instances where the work is

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to be performed on-site at any Government installation, where the foreign person will have access to export-controlled technical data or software.

(c) The Contractor shall be responsible for all regulatory record keeping requirements associated with the use of licenses and license exemptions/exceptions.

(d) The Contractor shall be responsible for ensuring that the provisions of this clause apply to its subcontractors.

(End of clause)

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CONTRACT CLAUSES**

I.1 SECTION I CLAUSES INCORPORATED BY REFERENCE

- (52.202-1) DEFINITIONS (DEC 2001)
- (52.203-3) GRATUITIES (APR 1984)
- (52.203-5) COVENANT AGAINST CONTINGENT FEES (APR 1984)
- (52.203-6) RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT
(JUL 1995)
- (52.203-7) ANTI-KICKBACK PROCEDURES (JUL 1995)
- (52.203-8) CANCELLATION, RESCISSION, AND RECOVERY OF FUNDS FOR
ILLEGAL OR IMPROPER ACTIVITY (JAN 1997)
- (52.203-10) PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER
ACTIVITY (JAN 1997)
- (52.203-12) LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL
TRANSACTIONS (JUNE 2003)
- (52.204-2) SECURITY REQUIREMENTS (AUG 1996)
- (52.204-4) PRINTED OR COPIED DOUBLE-SIDED ON RECYCLED PAPER (AUG
2000)
- (52.209-6) PROTECTING THE GOVERNMENT'S INTEREST WHEN
SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED,
OR PROPOSED FOR DEBARMENT (JUL 1995)
- (52.211-5) MATERIAL REQUIREMENTS (AUG 2000)
- (52.211-15) DEFENSE PRIORITY AND ALLOCATION REQUIREMENTS (SEPT
1990)
- (52.215-2) AUDIT AND RECORDS--NEGOTIATION (JUNE 1999)
- (52.215-8) ORDER OF PRECEDENCE--UNIFORM CONTRACT FORMAT (OCT
1997)
- (52.215-11) PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA--
MODIFICATION (OCT 1997)
- (52.215-13) SUBCONTRACTOR COST OR PRICING DATA--MODIFICATIONS (OCT
1997)
- (52.215-14) INTEGRITY OF UNIT PRICES (OCT 1997)
- (52.215-15) PENSION ADJUSTMENTS AND ASSET REVERSIONS (JAN 2004)
- (52.215-18) REVERSION OR ADJUSTMENT OF PLANS FOR POSTRETIREMENT
BENEFITS (PRB) OTHER THAN PENSIONS (OCT 1997)
- (52.215-19) NOTIFICATION OF OWNERSHIP CHANGES (OCT 1997)
- (52.215-21) REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION
OTHER THAN COST OR PRICING DATA--MODIFICATIONS (OCT
1997)
- (52.216-7) ALLOWABLE COST AND PAYMENT (DEC 2002)
- (52.219-6) NOTICE OF TOTAL SMALL BUSINESS SET-ASIDE (JUNE 2003)
- (52.219-8) UTILIZATION OF SMALL BUSINESS CONCERNS (OCT 2000)
- (52.222-1) NOTICE TO THE GOVERNMENT OF LABOR DISPUTES (FEB 1997)
- (52.222-19) CHILD LABOR--COOPERATION WITH AUTHORITIES AND REMEDIES
(JAN 2004)
- (52.222-20) WALSH-HEALEY PUBLIC CONTRACTS ACT (DEC 1996)

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CONTRACT CLAUSES**

- (52.222-21) PROHIBITION OF SEGREGATED FACILITIES (FEB 1999)
- (52.222-26) EQUAL OPPORTUNITY (APR 2002)
- (52.222-35) EQUAL OPPORTUNITY FOR SPECIAL DISABLED VETERANS,
VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE
VETERANS (DEC 2001)
- (52.222-36) AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES (JUN
1998)
- (52.222-37) EMPLOYMENT REPORTS ON SPECIAL DISABLED VETERANS,
VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE
VETERANS (DEC 2001)
- (52.223-5) POLLUTION PREVENTION AND RIGHT-TO-KNOW INFORMATION
(AUG 2003)
- (52.223-6) DRUG FREE WORK PLACE (MAY 2001)
- (52.223-14) TOXIC CHEMICAL RELEASE REPORTING (AUG 2003)
- (52.225-1) BUY AMERICAN ACT--SUPPLIES (JUNE 2003)
- (52.225-8) DUTY FREE ENTRY (FEB 2000)
- (52.225-13) RESTRICTIONS ON CERTAIN FOREIGN PURCHASES (DEC 2003)
- (52.227-1) AUTHORIZATION AND CONSENT (JUL 1995)--ALTERNATE I (APR
1984)
- (52.227-2) NOTICE AND ASSISTANCE REGARDING PATENT AND COPY-RIGHT
INFRINGEMENT (AUG 1996)
- (52.227-11) PATENT RIGHTS--RETENTION BY CONTRACTOR (SHORT FORM)
(JUN 1997) as modified by NASA FAR Supplement
1852.227-11
- (52.227-14) RIGHTS IN DATA-GENERAL (JUN 1987) as modified by NASA
FAR Supplement 1852.227-14
- (52.228-7) INSURANCE--LIABILITY TO THIRD PERSONS (MAR 1996)
- (52.232-17) INTEREST (JUN 1996)
- (52.232-22) LIMITATION OF FUNDS (APR 1984)
- (52.232-23) ASSIGNMENT OF CLAIMS (JAN 1986)
- (52.232-25) PROMPT PAYMENT (OCT 2003)--ALTERNATE I (FEB 2002)
- (52.232-34) PAYMENT BY ELECTRONIC FUNDS TRANSFER--OTHER THAN
CENTRAL CONTRACTOR REGISTRATION (MAY 1999) [para (b) (1)
fill-in (hereafter: "designated office"--Cost and
Commercial Accounts Department, Code 155, NASA/Goddard
Space Flight Center, Greenbelt, MD 20771, FAX 301-286-
1748, no later than concurrent with the first request
for payment.]
- (52.233-1) DISPUTES (JULY 2002)
- (52.233-3) PROTEST AFTER AWARD (AUG 1996)--ALTERNATE I (JUN 1985)
- (52.237-2) PROTECTION OF GOVERNMENT BUILDINGS, EQUIPMENT, AND
VEGETATION (APR 1984)
- (52.237-3) CONTINUITY OF SERVICES (JAN 1991)
- (52.239-1) PRIVACY OR SECURITY SAFEGUARDS (AUG 1996)
- (52.242-1) NOTICE OF INTENT TO DISALLOW COSTS (APR 1984)

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CONTRACT CLAUSES**

- (52.242-3) PENALTIES FOR UNALLOWABLE COSTS (MAY 2001)
(52.242-13) BANKRUPTCY (JUL 1995)
(52.243-2) CHANGES--COST-REIMBURSEMENT (AUG 1987)-- ALTERNATE II
(APR 1984)
(52.244-2) SUBCONTRACTS (AUG 1998)--ALTERNATE I (AUG 1998)
{paragraph (e) is "Professional and consultant costs
as defined at FAR 31.205-33" and paragraph (k) is
"None"}
-
- (52.244-5) COMPETITION IN SUBCONTRACTING (DEC 1996)
(52.245-1) PROPERTY RECORDS (APR 1984)
(52.245-5) GOVERNMENT PROPERTY (COST-REIMBURSEMENT, TIME-AND-
MATERIAL, OR LABOR-HOUR CONTRACTS) (MAY 2004)
(DEVIATION) (SEP 1999)--(g) (5) of the clause shall
read as follows: "The contractor shall notify the
contracting officer upon loss or destruction of, or
damage to, Government property provided under this
contract, with the exception of low value property for
which loss, damage, or destruction is reported at
contract termination, completion, or when needed for
continued performance. The Contractor shall take all
reasonable action to protect the Government property
from further damage, separate the damaged and
undamaged Government property, put all the affected
Government property in the best possible order, and
furnish to the Contracting Officer a statement of--"
The balance of (g) (5) is unchanged.
- (52.245-19) GOVERNMENT PROPERTY FURNISHED "AS IS" (APR 1984)
(52.246-25) LIMITATION OF LIABILITY--SERVICES (FEB 1997)
(52.247-1) COMMERCIAL BILL OF LADING NOTATIONS (APR 1984)
(52.247-63) PREFERENCE FOR U.S.-FLAG AIR CARRIERS (JUNE 2003)
(52.247-67) SUBMISSION OF COMMERCIAL TRANSPORTATION BILLS TO THE
GENERAL SERVICES ADMINISTRATION FOR AUDIT (JUN 1997)
(52.248-1) VALUE ENGINEERING (FEB 2000)
(52.249-6) TERMINATION (COST-REIMBURSEMENT) (MAY 2004)
(52.249-14) EXCUSABLE DELAYS (APR 1984)
(52.251-1) GOVERNMENT SUPPLY SOURCES (APR 1984)
(1852.203-70) DISPLAY OF INSPECTOR GENERAL HOTLINE POSTERS (JUNE
2001)
(1852.204-76) SECURITY REQUIREMENTS FOR UNCLASSIFIED INFORMATION
TECHNOLOGY RESOURCES (JULY 2002) Para (c) is completed
with "30 days"
(1852.215-84) OMBUDSMAN (OCT 2003)--ALTERNATE I (JUNE 2000) The
installation Ombudsman is William F. Townsend, Goddard
Space Flight Center, Mailstop 100, Greenbelt, MD
20771, Business Phone: 301 286-5066, Fax 301 286-
1714, E-mail address: William.F.Townsend@nasa.gov

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(1852.216-89) ASSIGNMENT AND RELEASE FORMS (JUL 1997)
(1852.219-77) NASA MENTOR-PROTEGE PROGRAM (MAY 1999)
(1852.219-79) MENTOR REQUIREMENTS AND EVALUATION (MAR 1999)
(1852.223-74) DRUG-AND ALCOHOL-FREE WORKPLACE (MAR 1996)
(1852.242-78) EMERGENCY MEDICAL SERVICES AND EVACUATION (APR 2001)
(1852.243-71) SHARED SAVINGS (MAR 1997)

(End of By Reference Section)

I.2 SPECIAL 8(a) CONTRACT CONDITIONS (52.219-11) (FEB 1990)(DEVIATION)

(a) This contract is issued as a direct award between the contracting activity and the 8(a) contractor pursuant to a Memorandum of Understanding between the Small Business Administration (SBA) and the National Aeronautics and Space Administration. Accordingly, the SBA is not a party to this contract. SBA does retain responsibility for 8(a) certification, 8(a) eligibility determinations and related issues, and providing counseling and assistance to the 8(a) contractor under the 8(a) program. The cognizant SBA district office is:

U.S. Small Business Administration, Washington District Office

Attention: Ms. Revella McWilliams

1110 Vermont Avenue N.W., 9th Floor

Washington, D.C. 20043-4500

[insert name and address of cognizant SBA office]

(b) The contracting activity is responsible for administering the contract and taking any action on behalf of the Government under the terms and conditions of the contract; provided, however, that the contracting activity shall give advance notice to the SBA before it issues a final notice terminating performance, either in whole or in part, under the contract. The contracting activity shall also coordinate with the SBA prior to processing any novation agreement.

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The contracting activity may assign contract administration functions to a contract administration office.

(c) The contractor agrees:

(1) To notify the Contracting Officer, simultaneous with its notification to SBA (as required by SBA's 8(a) regulations), when the owner or owners upon whom 8(a) eligibility is based plan to relinquish ownership or control of the concern. Consistent with Section 407 of Public Law 100-656, transfer of ownership or control shall result in termination of the contract for convenience, unless the SBA waives the requirement for termination prior to the actual relinquishing of ownership and control.

(2) It will not subcontract the performance of any of the requirements of this contract without the prior written approval of the SBA and the Contracting Officer.

(End of clause)

I.3 LIMITATIONS ON SUBCONTRACTING (52.219-14) (DEC 1996)

(a) This clause does not apply to the unrestricted portion of a partial set-aside.

(b) By submission of an offer and execution of a contract, the Offeror/Contractor agrees that in performance of the contract in the case of a contract for--

(1) Services (except construction). At least 50 percent of the cost of contract performance incurred for personnel shall be expended for employees for the concern.

(2) Supplies (other than procurement from a nonmanufacturer of such supplies). The concern shall perform work for at least 50 percent of the cost of manufacturing the supplies, not including the cost of materials.

(3) General construction. The concern will perform at least 15 percent of the cost of the contract, not including the cost of materials, with its own employees.

(4) Construction by special trade contractors. The concern will perform at least 25 percent of the cost of the contract, not including the cost of materials, with its own employees.

(End of clause)

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**I.4 NOTIFICATION OF COMPETITION LIMITED TO ELIGIBLE 8(a) CONCERNS
(52.219-18) (JUNE 2003)(DEVIATION)**

(a) Offers are solicited only from small business concerns expressly certified by the Small Business Administration (SBA) for participation in the SBA's 8(a) Program and which meet the following criteria at the time of submission of offer--

(1) The Offeror is in conformance with the 8(a) support limitation set forth in its approved business plan; and

(2) The Offeror is in conformance with the Business Activity Targets set forth in its approved business plan or any remedial action directed by the SBA.

(b) By submission of its offer, the Offeror represents that it meets all of the criteria set forth in paragraph (a) of this clause.

(c) Any award resulting from this solicitation will be made directly by the Contracting Officer to the successful 8(a) offeror selected through the evaluation criteria set forth in this solicitation.

(d) (1) Agreement. A small business concern submitting an offer in its own name shall furnish, in performing the contract, only end items manufactured or produced by small business concerns in the United States or its outlying areas. If this procurement is processed under simplified acquisition procedures and the total amount of this contract does not exceed \$25,000, a small business concern may furnish the product of any domestic firm. This paragraph does not apply in connection with construction or service contracts.

(2) The **SGT, Inc** will notify the Goddard Space Flight Center's Contracting Officer in writing immediately upon entering an agreement (either oral or written) to transfer all or part of its stock or other ownership interest to another party.

(End of clause)

**I.5 HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA
(52.223-3) (JAN 1997)--ALTERNATE I (JUL 1995)**

(a) "Hazardous material," as used in this clause, includes any material defined as hazardous under the latest version of Federal Standard No. 313 (including revisions adopted during the term of the contract).

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this clause, the Contractor shall promptly notify the Contracting Officer and resubmit the data.

(f) Neither the requirements of this clause nor any act or failure to act by the Government shall relieve the Contractor of any responsibility or liability for the safety of Government, Contractor, or subcontractor personnel or property.

(g) Nothing contained in this clause shall relieve the Contractor from complying with applicable Federal, State, and local laws, codes, ordinances, and regulations (including the obtaining of licenses and permits) in connection with hazardous material.

(h) The Government's rights in data furnished under this contract with respect to hazardous material are as follows:

(1) To use, duplicate, and disclose any data to which this clause is applicable. The purposes of this right are to--

(i) Apprise personnel of the hazards to which they may be exposed in using, handling, packaging, transporting, or disposing of hazardous materials;

(ii) Obtain medical treatment for those affected by the material; and

(iii) Have others use, duplicate, and disclose the data for the Government for these purposes.

(2) To use, duplicate, and disclose data furnished under this clause, in accordance with subparagraph (h)(1) of this clause, in precedence over any other clause of this contract providing for rights in data.

(3) The Government is not precluded from using similar or identical data acquired from other sources.

(i) Except as provided in paragraph (i)(2), the Contractor shall prepare and submit a sufficient number of Material Safety Data Sheets (MSDS's), meeting the requirements of 29 CFR 1910.1200(g) and the latest version of Federal Standard No. 313, for all hazardous material identified in paragraph (b) of this clause.

(1) For items shipped to consignees, the Contractor shall include a copy of the MSDS's with the packing list or other suitable shipping document which accompanies each shipment. Alternatively,

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the Contractor is permitted to transmit MSDS's to consignees in advance of receipt of shipments by consignees, if authorized by the Contracting Officer.

(2) For items shipped to consignees identified by mailing address as agency depots, distribution centers or customer supply centers, the Contractor shall provide one copy of the MSDS's in or on each shipping container. If affixed to the outside of each container, the MSDS must be placed in a weather resistant envelope.

(End of clause)

I.6 NOTICE OF RADIOACTIVE MATERIALS (52.223-7) (JAN 1997)

(a) The Contractor shall notify the Contracting Officer or designee, in writing, thirty (30) days prior to the delivery of, or prior to the completion of any servicing required by this contract, of items containing either (1) radioactive material requiring specific licensing under the regulations issued pursuant to the Atomic Energy Act of 1954, as amended, as set forth in title 10 of the Code of Federal Regulations, in effect on the date of this contract, or (2) other radioactive material not requiring specific licensing in which the specific activity is greater than 0.002 microcuries per gram or the activity per item equals or exceeds 0.01 microcuries. Such notice shall specify the part or parts of the items which contain radioactive materials, a description of the materials, the name and activity of the isotope, the manufacturer of the materials, and any other information known to the Contractor which will put users of the items on notice as to the hazards involved (OMB No. 9000-0107).

(b) If there has been no change affecting the quantity of activity, or the characteristics and composition of the radioactive material from deliveries under this contract or prior contracts, the Contractor may request that the Contracting Officer or designee waive the notice requirement in paragraph (a) of this clause. Any such request shall--

(1) Be submitted in writing;

(2) State that the quantity of activity, characteristics, and composition of the radioactive material have not changed; and

(3) Cite the contract number on which the prior notification was submitted and the contracting office to which it was submitted.

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(c) All items, parts, or subassemblies which contain radioactive materials in which the specific activity is greater than 0.002 microcuries per gram or activity per item equals or exceeds 0.01 microcuries, and all containers in which such items, parts or subassemblies are delivered to the Government shall be clearly marked and labeled as required by the latest revision of MIL-STD 129 in effect on the date of the contract.

(d) This clause, including this paragraph (d), shall be inserted in all subcontracts for radioactive materials meeting the criteria in paragraph (a) of this clause.

(End of clause)

I.7 LIMITATION ON WITHHOLDING OF PAYMENTS (52.232-9) (APR 1984)

If more than one clause or Schedule term of this contract authorizes the temporary withholding of amounts otherwise payable to the Contractor for supplies delivered or services performed, the total of the amounts withheld at any one time shall not exceed the greatest amount that may be withheld under any one clause or Schedule term at that time; provided, that this limitation shall not apply to--

(a) Withholdings pursuant to any clause relating to wages or hours of employees;

(b) Withholdings not specifically provided for by this contract;

(c) The recovery of overpayments; and

(d) Any other withholding for which the Contracting Officer determines that this limitation is inappropriate.

(End of clause)

I.8 NOTIFICATION OF CHANGES (52.243-7) (APR 1984)

(a) Definitions. "Contracting Officer," as used in this clause, does not include any representative of the Contracting Officer. "Specifically authorized representative (SAR)," as used in this clause, means any person the Contracting Officer has so designated by written notice (a copy of which shall be provided to the Contractor) which shall refer to this subparagraph and shall be issued to the designated representative before the SAR exercises such authority.

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(b) Notice. The primary purpose of this clause is to obtain prompt reporting of Government conduct that the Contractor considers to constitute a change to this contract. Except for changes identified as such in writing and signed by the Contracting Officer, the Contractor shall notify the Administrative Contracting Officer in writing promptly, within **seven** calendar days from the date that the Contractor identifies any Government conduct (including actions, inactions, and written or oral communications) that the Contractor regards as a change to the contract terms and conditions. On the basis of the most accurate information available to the Contractor, the notice shall state--

(1) The date, nature, and circumstances of the conduct regarded as a change;

(2) The name, function, and activity of each Government individual and Contractor official or employee involved in or knowledgeable about such conduct;

(3) The identification of any documents and the substance of any oral communication involved in such conduct;

(4) In the instance of alleged acceleration of scheduled performance or delivery, the basis upon which it arose;

(5) The particular elements of contract performance for which the Contractor may seek an equitable adjustment under this clause, including--

(i) What contract line items have been or may be affected by the alleged change,

(ii) What labor or materials or both have been or may be added, deleted, or wasted by the alleged change;

(iii) To the extent practicable, what delay and disruption in the manner and sequence of performance and effect on continued performance have been or may be caused by the alleged change;

(iv) What adjustments to contract price, delivery schedule, and other provisions affected by the alleged change are estimated; and

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(6) The Contractor's estimate of the time by which the Government must respond to the Contractor's notice to minimize cost, delay or disruption of performance.

(c) Continued performance. Following submission of the notice required by (b) above, the Contractor shall diligently continue performance of this contract to the maximum extent possible in accordance with its terms and conditions as construed by the Contractor, unless the notice reports a direction of the Contracting Officer or a communication from a SAR of the Contracting Officer, in either of which events the Contractor shall continue performance; provided, however, that if the Contractor regards the direction or communication as a change as described in (b) above, notice shall be given in the manner provided. All directions, communications, interpretations, orders and similar actions of the SAR shall be reduced to writing promptly and copies furnished to the Contractor and to the Contracting Officer. The Contracting Officer shall promptly countermand any action which exceeds the authority of the SAR.

(d) Government response. The Contracting Officer shall promptly, within **21** calendar days after receipt of notice, respond to the notice in writing. In responding, the Contracting Officer shall either--

(1) Confirm that the conduct of which the Contractor gave notice constitutes a change and when necessary direct the mode of further performance;

(2) Countermand any communication regarded as a change;

(3) Deny that the conduct of which the Contractor gave notice constitutes a change and when necessary direct the mode of further performance; or

(4) In the event the Contractor's notice information is inadequate to make a decision under (1), (2), or (3) above, advise the Contractor what additional information is required, and establish the date by which it should be furnished and the date thereafter by which the Government will respond.

(e) Equitable adjustments. (1) If the Contracting Officer confirms that Government conduct effected a change as alleged by the Contractor, and the conduct causes an increase or decrease in the Contractor's cost of, or the time required for, performance of any

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part of the work under this contract, whether changed or not changed by such conduct, an equitable adjustment shall be made--

(i) In the contract price or delivery schedule or both; and

(ii) In such other provisions of the contract as may be affected.

(2) The contract shall be modified in writing accordingly. In the case of drawings, designs or specifications which are defective and for which the Government is responsible, the equitable adjustment shall include the cost and time extension for delay reasonably incurred by the Contractor in attempting to comply with the defective drawings, designs or specifications before the Contractor identified, or reasonably should have identified, such defect. When the cost of property made obsolete or excess as a result of a change confirmed by the Contracting Officer under this clause is included in the equitable adjustment, the Contracting Officer shall have the right to prescribe the manner of disposition of the property. The equitable adjustment shall not include increased costs or time extensions for delay resulting from the Contractor's failure to provide notice or to continue performance as provided, respectively, in (b) and (c) above.

NOTE: The phrases "contract price" and "cost" wherever they appear in the clause, may be appropriately modified to apply to cost-reimbursement or incentive contracts, or to combinations thereof.

(End of clause)

I.9 SUBCONTRACTS FOR COMMERCIAL ITEMS (52.244-6)(APR 2003)

(a) Definitions. As used in this clause--
"Commercial item," has the meaning contained in the clause at 52.202-1, Definitions.

"Subcontract," includes a transfer of commercial items between divisions, subsidiaries, or affiliates of the Contractor or subcontractor at any tier.

(b) To the maximum extent practicable, the Contractor shall incorporate, and require its subcontractors at all tiers to incorporate, commercial items or nondevelopmental items as components of items to be supplied under this contract.

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(c)(1) The following clauses shall be flowed down to subcontracts for commercial items:

(i) 52.219-8, Utilization of Small Business Concerns (OCT 2000) (15 U.S.C. 637(d)(2) and (3)), in all subcontracts that offer further subcontracting opportunities. If the subcontractor (except contracts to small business concerns) exceeds \$500,000 (\$1,000,000 for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.

(ii) 52.222-26, Equal Opportunity (APR 2002) (E.O. 11246).

(iii) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (DEC 2001) (38 U.S.C. 4212(a)).

(iv) 52.222-36, Affirmative Action for Workers with Disabilities (JUN 1998) (29 U.S.C. 793).

(v) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (JUN 2000) (46 U.S.C. Appx 1241 and 10 U.S.C. 2631) (flow down required in accordance with paragraph (d) of FAR clause 52.247-64).

(2) While not required, the Contractor may flow down to subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.

(d) The Contractor shall include the terms of this clause, including this paragraph (d), in subcontracts awarded under this contract.

(End of clause)

I.10 CLAUSES INCORPORATED BY REFERENCE (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):

Federal Acquisition Regulation (FAR) clauses:

<http://www.arnet.gov/far/>

NASA FAR Supplement (NFS) clauses:

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

(End of clause)

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I.11 COMPUTER GENERATED FORMS (52.253-1) (JAN 1991)

(a) Any data required to be submitted on a Standard or Optional Form prescribed by the Federal Acquisition Regulation (FAR) may be submitted on a computer generated version of the form, provided there is no change to the name, content, or sequence of the data elements on the form, and provided the form carries the Standard or Optional Form number and edition date.

(b) Unless prohibited by agency regulations, any data required to be submitted on an agency unique form prescribed by an agency supplement to the FAR may be submitted on a computer generated version of the form provided there is no change to the name, content, or sequence of the data elements on the form and provided the form carries the agency form number and edition date.

(c) If the Contractor submits a computer generated version of a form that is different than the required form, then the rights and obligations of the parties will be determined based on the content of the required form.

(End of clause)

I.12 SECURITY CLASSIFICATION REQUIREMENTS (1852.204-75) (SEPT 1989)

Performance under this contract will involve access to and/or generation of classified information, work in a security area, or both, up to the level of **secret**. See Federal Acquisition Regulation clause 52.204-2 in this contract and DD Form 254, Contract Security Classification Specification, **Attachment D**.

(End of clause)

I.13 USE OF RURAL AREA SMALL BUSINESSES (1852.219-74) (SEP 1990)

(a) Definitions.

"Rural area" means any county with a population of fewer than twenty thousand individuals.

"Small business concern," as used in this clause, means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding under this contract, and qualified as a small business under the criteria and size standards in 13 CFR 121.

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(b) NASA prime and subcontractors are encouraged to use their best efforts to award subcontracts to small business concerns located in rural areas.

(c) Contractors acting in good faith may rely on written representations by their subcontractors regarding their status as small business concerns located in rural areas.

(d) The Contractor agrees to insert the provisions of this clause, including this paragraph (d), in all subcontracts hereunder that offer subcontracting possibilities.

(End of clause)

I.14 NASA 8 PERCENT GOAL (1852.219-76) (JUL 1997)

(a) Definitions.

"Historically Black Colleges or University", as used in this clause means an institution determined by the Secretary of Education to meet the requirements of 34 CFR Section 608.2. The term also includes any nonprofit research institution that was an integral part of such a college or university before November 14, 1986.

"Minority institutions", as used in this clause, means an institution of higher education meeting the requirements of section 1046(3) of the Higher Education Act of 1965 (20 U.S.C. 1135d-5(3)) which for the purposes of this clause includes a Hispanic-serving institution of higher education as defined in section 316(b)(1) of the Act (20 U.S.C. 1059c(b)(1)).

"Small disadvantaged business concern", as used in this clause, means a small business concern that (1) is at least 51 percent unconditionally owned by one or more individuals who are both socially and economically disadvantaged, or a publicly owned business having at least 51 percent of its stock unconditionally owned by one or more socially and economically disadvantaged individuals, and (2) has its management and daily business controlled by one or more such individuals. This term also means a small business concern that is at least 51 percent unconditionally owned by an economically disadvantaged Indian tribe or Native Hawaiian Organization, or a publicly owned business having at least 51 percent of its stock unconditionally owned by one or more of these entities, which has its management and daily business controlled by members of an economically disadvantaged Indian tribe or Native Hawaiian Organization, and which meets the requirements of 13 CFR 124.

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"Women-owned small business concern", as used in this clause, means a small business concern (1) which is at least 51 percent owned by one or more women or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women, and (2) whose management and daily business operations are controlled by one or more women.

(b) The NASA Administrator is required by statute to establish annually a goal to make available to small disadvantaged business concerns, Historically Black Colleges and Universities, minority institutions, and women-owned small business concerns, at least 8 percent of NASA's procurement dollars under prime contracts or subcontracts awarded in support of authorized programs, including the space station by the time operational status is obtained.

(c) The contractor hereby agrees to assist NASA in achieving this goal by using its best efforts to award subcontracts to such entities to the fullest extent consistent with efficient contract performance.

(d) Contractors acting in good faith may rely on written representations by their subcontractors regarding their status as small disadvantaged business concerns, Historically Black Colleges and Universities, minority institutions, and women-owned small business concerns.

(End of clause)

I.15 MINIMUM INSURANCE COVERAGE (1852.228-75) (OCT 1988)

The Contractor shall obtain and maintain insurance coverage as follows for the performance of this contract:

(a) Worker's compensation and employer's liability insurance as required by applicable Federal and state workers' compensation and occupational disease statutes. If occupational diseases are not compensable under those statutes, they shall be covered under the employer's liability section of the insurance policy, except when contract operations are so commingled with the Contractor's commercial operations that it would not be practical. The employer's liability coverage shall be at least \$100,000, except in States with exclusive or monopolistic funds that do not permit workers' compensation to be written by private carriers.

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(b) Comprehensive general (bodily injury) liability insurance of at least \$500,000 per occurrence.

(c) Motor vehicle liability insurance written on the comprehensive form of policy which provides for bodily injury and property damage liability covering the operation of all motor vehicles used in connection with performing the contract. Policies covering motor vehicles operated in the United States shall provide coverage of at least \$200,000 per person and \$500,000 per occurrence for bodily injury liability and \$20,000 per occurrence for property damage. The amount of liability coverage on other policies shall be commensurate with any legal requirements of the locality and sufficient to meet normal and customary claims.

(d) Comprehensive general and motor vehicle liability policies shall contain a provision worded as follows:

"The insurance company waives any right of subrogation against the United States of America which may arise by reason of any payment under the policy."

(e) When aircraft are used in connection with performing the contract, aircraft public and passenger liability insurance of at least \$200,000 per person and \$500,000 per occurrence for bodily injury, other than passenger liability, and \$200,000 per occurrence for property damage. Coverage for passenger liability bodily injury shall be at least \$200,000 multiplied by the number of seats or passengers, whichever is greater.

(End of clause)

I.16 CENTER FOR AEROSPACE INFORMATION (1852.235-70) (FEB 2003)

(a) The Contractor should register with and avail itself of the services provided by the NASA Center for AeroSpace Information (CASI) (<http://www.sti.nasa.gov>) for the conduct of research or research and development required under this contract. CASI provides a variety of services and products as a NASA repository and database of research information, which may enhance contract performance.

(b) Should the CASI information or service requested by the Contractor be unavailable or not in the exact form necessary by the Contractor, neither CASI nor NASA is obligated to search for or change the format of the information. A failure to furnish information shall not entitle the Contractor to an equitable adjustment under the terms and conditions of this contract.

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(c) Information regarding CASI and the services available can be obtained at the Internet address contained in paragraph (a) of this clause or at the following address:

Center for AeroSpace Information (CASI)
7121 Standard Drive
Hanover, Maryland 21076-1320
Email: help@sti.nasa.gov
Phone: 301-621-0390
FAX: 301-621-0134

(End of clause)

I.17 EMERGENCY EVACUATION PROCEDURES (1852.237-70) (DEC 1988)

The Contractor shall assure that its personnel at Government facilities are familiar with the functions of the Government's emergency evacuation procedures. If requested by the Contracting Officer, the Contractor shall designate an individual or individuals as contact points to provide for efficient and rapid evacuation of the facility if and when required.

(End of clause)

**SECTION M OF RFP-36449-GCR
EVALUATION FACTORS FOR AWARD**

J.1 LIST OF ATTACHMENTS (GSFC 52.211-101) (OCT 1988)

The following attachments constitute part of this contract:

Attachment	Description	Date	No. of Pages
A	Statement of Work	6/04	36
B	Direct Labor Rates, Indirect Rates, and Award Fee Matrices & Position Descriptions	7/04	41
C	Financial Management Reporting Requirements	6/04	5
D	DD Form 254, Contract Security Classification Specification	6/04	2
E	Installation Accountable Government Property (IAGP)	6/04	1
F	Safety and Health Plan	7/04	49
G	Mission Assurance Plan (MAP)	7/04	30
H	Information Technology (IT) Security Plan	TBP	TBP

(End of clause)

Attachment A
NNG05CA99C
6/2004



**NASA
GODDARD SPACE FLIGHT CENTER**

**STATEMENT OF WORK
FOR
MULTIDISCIPLINARY
ENGINEERING AND TECHNOLOGY SERVICES (METS)
FOR THE
APPLIED ENGINEERING AND
TECHNOLOGY DIRECTORATE (AETD)**

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INTRODUCTION

The National Aeronautics and Space Administration (NASA) was established to plan, direct, and conduct aeronautical and space activities for peaceful purposes for the benefit of all mankind. The operational aspects of NASA's work are divided among field installations around the country and involve research and development activities under the responsibility of six technical program offices at NASA Headquarters.

The Goddard Space Flight Center (GSFC) is located in Greenbelt, Maryland and reports to the Office of Earth Science. The GSFC is chartered to expand the knowledge of the earth and its environment, the solar system, and the universe through observations from space. To this end, the GSFC's primary emphasis is in scientific investigation, in the development and operation of space systems, and in the advancement of essential technologies. In accomplishing this responsibility, the GSFC has undertaken a broad program of scientific research, both theoretical and experimental, in the study of space phenomena and earth sciences. The program ranges from basic research to flight experiment development, and from mission operations to data analysis.

Within the GSFC, the Applied Engineering Technology Directorate (AETD) plans, organizes, and conducts a broad range of technical research and development activities in support of science applications. The AETD is responsible for providing engineering expertise and support in the formulation, design, development, non-flight fabrication, integration, test, verification, and operation of components, subsystems, systems, science instruments, and complete spacecraft for multiple projects. The specific components, subsystems, systems, and science instruments are ultimately integrated into the spacecraft to form a science observatory. It is these observatories that are launched to fulfill the mission of the GSFC. The AETD comprises five engineering divisions: the Mechanical Systems Division (MSD), the Information Systems Division (ISD), the Instrument Systems and Technology Division (ISTD), the Electrical Engineering Division (EED), and the Mission Engineering and Systems Analysis Division (MESA).

To fulfill these responsibilities and ultimately achieve their missions, the AETD must acquire a wide range of engineering services in support of its divisions to implement the GSFC mission.

SCOPE OF WORK

The purpose of this contract is to acquire engineering and related services to MESA, ISD, ISTD, EED, and related organizations, as required, for the formulation, design, development, non-flight fabrication, integration, testing, verification, and operations of space flight and ground system hardware and software, including development and validation of new technologies to enable future space and science missions. The emphasis in engineering services will be in the areas of systems engineering, software engineering, information technology, and Guidance Navigation and Control (GN&C) services.

To this end, the contractor shall provide on/off-site multidisciplinary engineering services, pursuant to task assignments issued by the Contracting Officer. These services shall include the personnel, facilities, and materials (unless otherwise provided by the Government) to accomplish the tasks.

Tasks assignments will be issued to perform services in all aspects of mission and instrument development and implementation for components, subsystems, systems, science instruments, observatories, launch, ground system, spacecraft, and suborbital craft (e.g., aircraft, sounding rockets, UAVs, balloons), including attached shuttle or Space Station, payloads, free-flying spacecraft, suborbital craft payloads, and Space Station payloads as well as ground support equipment, simulators, non-flight models, and prototypes; candidate, feasibility, and systems definition studies; project management; systems engineering; analysis; preliminary design; detailed design; non-flight fabrication; assembly; integration; test and verification; test instrumentation; data systems management; launch and post-launch operations; research and technology unique to system development; documentation; maintenance; sustaining engineering; configuration management; mission assurance; architectural trades, performance, cost, risk assessment, and systems safety.

I. GENERAL RESPONSIBILITIES

The Contractor's responsibilities shall include the management of personnel, timely and effective implementation of task assignments, control and monitoring of contract and subcontract performance, management of scheduled deliveries, and timely and effective reporting to the Government. These responsibilities shall also include efficient cost management methods as well as procedures to ensure that the Government is aware of task assignment status and progress achieved.

The Contractor shall be responsible for ensuring that all contractor and subcontractor personnel engaged in performance of this Statement of Work have appropriate qualifications, knowledge, and certification to perform work in accordance with the task assignments.

II. PERFORMANCE MEASUREMENT

Performance-based statements of work/specifications will be used for establishing contract requirements. Therefore, each task assignment issued by the Contracting Officer will include, as a minimum, the following:

1. Statement of Work, including the requirements to be met, the standard(s) of performance/quality of work, and required deliverables (or other output)
2. Performance Specification (if applicable)
3. Applicable Documents (if required)
4. Period of Performance
5. Incentive Structure
6. Surveillance Plan

The Contractor shall be required to adhere to the performance measurements detailed in each task assignment.

III. TASKS

Services shall be required in one or more of the areas described in the scope above for any given task assignment. Services within the scope of this Statement of Work and specified in task assignments shall include, but not be limited to, the specific services delineated in the following sections.

**FUNCTION 1 – PRE-FORMULATION AND FORMULATION SERVICES: CANDIDATE,
PRELIMINARY ANALYSIS, AND SYSTEMS DEFINITION STUDIES**

The Contractor shall provide engineering services for mission concept development that integrate the aspects of flight systems, ground systems, instrument systems, and launch systems.

In general, the Contractor shall:

1. Produce pre-formulation and formulation phase study inputs for spacecraft, suborbital craft, instruments, and ground systems
2. Develop mission needs (mission objectives, measurement concept, and instrument concept) and mission design (mission requirements, architectural design, and operations concept).
3. Develop preliminary, relative cost and schedule estimates based on design alternatives, and identify and assess high-risk elements in designs
4. Document the history of design, qualification, flight experience, and modifications where existing components or subsystems are to be utilized
5. Identify interface requirements for pre-launch, launch, on-orbit servicing, or retrieval of flight hardware
6. Define interface engineering and management requirements
7. Prepare mission systems and operations documentation
8. Prepare requirements and specification packages that conform to applicable standards defined within task statement
9. Identify interfaces and prepare interface control documents
10. Provide technical inputs for problem-solving and/or design inputs in selected spacecraft, instruments, suborbital craft, ground system, and data disciplines
11. Analyze various reports (i.e., progress reports) delivered by the GSFC mission contractor(s) and provide recommendations to the project
12. Provide liaison and coordination services for project activities

13. Provide design services that include performance of preliminary design (leading to a Preliminary Design Review) of the subsystems, components, and assemblies that comprise the instrument/spacecraft/platform/launch system/ground system

A. Candidate Study Services

The Contractor shall provide study services for the conceptual design and development of subsystems and systems, thereby participating in the identification of scientific objectives, mission requirements and technical concepts. Study products produced during this phase shall include, but not limited to:

1. Strategic technology planning
2. Integration of joint missions, partnerships, and other collaborative efforts
3. Research/science/technology/cost trade studies
4. Candidate operations concepts
5. Candidate system architectures
6. Cost, schedule, and risk estimates
7. Research and technology unique to system development
8. Customer development support and outreach

B. Preliminary Analysis Study Services

The Contractor shall provide preliminary analysis study services focusing on analyzing mission requirements and establishing mission architectures in order to demonstrate that a credible, feasible design(s) exist(s). The Contractor shall develop top-level requirements and evaluation criteria, identify alternative operations/logistics concepts, and identify project constraints and system boundaries. Study products produced during this phase shall include, but not limited to:

1. **Analysis Services Specific Tasks** – The Contractor shall perform analysis services tasks, including but not limited to:
 - a. Preliminary system design of a feasible, but not necessarily optimum configuration
 - b. Assessment of technical risks, including identification of technical problems and the criticality of their solution to follow-on efforts, identification of those problems currently being addressed, and a judgment of effort and time likely to be necessary to find a practical solution
 - c. Identification of all recommended systems characteristics, including launch and control capability, tracking and data acquisition, facility considerations, and institutional base activities

- d. Implementation plans, which include the identification of all major systems and subsystems
 - e. Preparation of the system design that forms the basis for implementing system development (hardware or software)
 - f. Provide alternative design concepts including feasibility and risk studies, cost and schedule estimates, and advanced technology requirements
 - g. Prepare for and support the appropriate Phase A project and technical reviews and prepare Phase A project documentation as appropriate (see the NASA Systems Engineering Handbook, SP-6105, June 1995)
2. **Documentation Specific Tasks** – The Contractor shall document all results from the study in a Feasibility Study Report.

C. System Definition Study Services

The Contractor shall provide system definition and preliminary design study services to establish (and evolve) the project baseline(s). These shall include:

1. **Analysis Services Specific Tasks** – The Contractor shall perform system definition analysis services specific tasks, including:
 - a. Defining system requirements, system budgets (e.g., mass, power, memory), error budgets, system/subsystem requirements, software requirements, ground support equipment requirements, and integration and test requirements
 - b. Identifying all recommended system characteristics, defining the subsystem components and assemblies, identifying the required complement of flight and ground support equipment, specifying internal and external interfaces, and verifying that the recommended design approach's critical subsystems and components are within the state-of-the-art
 - c. Providing a formal flow down of project-level performance requirements to a complete set of system and subsystem design specifications for both flight and ground elements. Phase B baseline information shall be developed including system requirements and verification requirements matrices, system architecture and work breakdown structures, operations concepts, "design-to" specifications at all levels, and project plans including schedule, resources, and acquisition strategies
 - d. Performing risk assessments of all critical elements, describing the risks and control methods. The knowledge and use of Probability Risk Assessment (PRA), Failure Modes and Effects Analysis (FMEA) and Fault Tree Analysis (FTA) is required.
 - e. Preparing the system design that shall form the basis for implementing/developing the system (hardware or software); defining the tasks and sequence of tasks that shall be performed to provide orderly technical development, design, review,

- interface, test, and integration of the system; and providing the required plans (modeling, analysis, and simulation; configuration; logistics; information; software; verification; integration and test, etc.) for the effort
- f. Describing and documenting integrated mission architecture
 - g. Preparing for and supporting the appropriate Phase B project and technical reviews and prepare Phase B project documentation as appropriate (see the NASA Systems Engineering Handbook, SP-6105, June 1995).

2. **Documentation Specific Tasks** – The Contractor shall document all results from the study effort in a Definition Study Report.

FUNCTION 2 – IMPLEMENTATION PHASE SERVICES - MULTI-DISCIPLINARY FUNCTIONS

The Contractor shall provide services to design, develop, unit test, system integrate, verify, integrate, deploy, and operate hardware and software on spacecraft, platform, and/or payload as defined by this Statement of Work. The implementation phase services shall include:

A. Multi-disciplinary Analyses and Design Services

The Contractor shall provide analytical and detailed design support that includes multi-disciplinary system analyses and trade studies involving, but not limited to, mechanical, thermal, optics (including radiometrics and stray light), contamination, control, guidance, navigation, detector, electrical, electronic, and software aspects of flight and ground systems, including associated ground support equipment. Services shall include the definition, development and use of models and simulations to study and quantify system performance and to conduct system trade studies. This includes, but is not limited to, such specific efforts as EMI/EMC analysis, environmental testing, magnetics testing, thermal vacuum testing, systems performance error budgets, power and weight budgeting and tracking, microphonics analyses, fracture control analyses, microwave communication system analyses (including link margin availability), controls-structures analyses, control-structural-thermal-optical analyses, instrument system analyses (including system sensitivities), computer performance analyses (including CPU, memory, simulations, etc), and systems reviews of selected critical subsystems. Services shall also include the development of measurement tools and models, analysis of measurement data, defect tracking, process improvement, cost estimation of hardware and software systems, modeling of organizational processes, electrical parts analyses, electrical board layouts, thermal analysis, non-flight electrical board fabrication, mechanical enclosure design, and technical writing documentation.

The Contractor shall provide design services that include performance of detailed (leading to a Critical Design Review) design of the subsystems, components and assemblies that comprise the instrument/spacecraft/platform. This effort includes hardware and software (flight and ground) as well as ground support equipment (electrical, thermal, contamination, mechanical, and cryogenic). Documentation, including technical reports, drawings, schematics, block diagrams, layouts, parts and materials list, and equipment lists, shall be provided.

Documentation Specific Tasks – The Contractor shall document all results from the modeling, simulations, analyses, and design effort and shall provide supporting materials and documentation.

B. Non-Flight Fabrication, Assembly and Testing Services

The Contractor shall provide non-flight fabrication, assembly and testing services, including breadboards, engineering models, and other non-flight models, including:

1. **Planning Specific Tasks** – The Contractor shall provide planning services, including:

- a. Implementation and maintenance of overall production and quality engineering plans
- b. Manufacturing, integration and test plans, describing sequences, qualification and acceptance test levels, and facilities needed to accomplish assembly, integration, alignment, testing, quality control, and checkout

2. **Non-Flight Fabrication Specific Tasks** – The Contractor shall provide non-flight fabrication services, including:

- a. Optical, mechanical, detector, electrical/electronics, and microwave, including antennas. Mechanical systems shall include pressurized propulsion systems containing hazardous fluids.
- b. Ground support equipment, including mechanical and electrical, and optical
- c. Laboratory control systems
- d. Wiring harnesses
- e. Special parts
- f. Surface mount printed circuit boards, including leadless chip carriers and chip-on-board techniques

3. **Non-Flight Assembly Specific Tasks** – The Contractor shall provide assembly services, including:

- a. Optical, mechanical, detector, electrical/electronics, and microwave, including antennas mechanical systems shall include pressurized propulsion systems containing hazardous fluids.
- b. Ground support equipment including mechanical, electrical, and optical
- c. Test equipment and fixtures
- d. Wiring harnesses

C. Integration, Test, and Verification Services

The Contractor shall provide engineering and test-conductor services that include integrating and verifying the flight, ground systems, and science data system, preparing and executing test procedures, documenting all non-conformances and dispositions, providing operating manuals, reference documents, training, and launch site support.

1. **Integration, Test and Verification Specific Tasks** – The Contractor shall provide integration, test, and verification services including mission systems engineering,

systems engineering, independent software verification and validation, acceptance testing, regression testing, software support and system-level support of products during box, instrument, spacecraft and observatory I&T including:

- a. Major program reviews
- b. Space flight subsystems
- c. Space flight instruments
- d. Space flight payloads
- e. Suborbital craft instruments
- f. Ground instrumentation
- g. Ground support systems
- h. Science data systems/applications
- i. Spacecraft and science operations control rooms
- j. Suborbital craft subsystems

D. Laboratory and Test Instrumentation Services

The Contractor shall provide the services necessary for conceptualization, prototyping, system engineering, design, development, integration, test, sustaining engineering, maintenance and utilization of laboratory and test instrumentation.

E. Launch and Post-Launch Operations Support

The Contractor shall supply launch and post-launch mission systems level, systems level, software, and ground systems support services for ELV, NSTS, sounding rocket, balloon, and aircraft-based missions, including:

1. **Launch Site Preparation Specific Tasks** – The Contractor shall provide system services at the launch site, including:
 - a. Supports to payload system and its support equipment
 - b. Interfaces to the mission operations control centers
 - c. Technical services to facilitate interfacing with the launch site organization
 - d. Development of launch site support requirements
 - e. Development of launch site plans and procedures
 - f. Assistance in shipment of the flight hardware and associated support equipment to and from the launch site
2. **Launch Operations Specific Tasks** – The Contractor shall provide launch and post-launch operations services for ELV, NSTS, sounding rocket, balloon, and aircraft-based missions, including:

- a. Assuring flight readiness of the payload and observatory system
 - b. Pre-launch testing of the payload and observatory system
 - c. Operation of associated ground support equipment
 - d. Services to the launch vehicle team for payload integration to the vehicle at the launch facility
3. **Mission Operation Support Specific Tasks** – The Contractor shall provide mission operation engineering services, including services for the payload and for carrier and flight support system during mission operations.
 4. **Landing and De-Integration Specific Tasks** – The Contractor shall provide landing and de-integration services, including services at the landing site for payload de-integration, post-flight testing, and payload shipment. This shall include suborbital craft and payloads recovery.
 5. **Refurbishment of Recovered Systems Specific Tasks** – The Contractor shall provide refurbishment services for recovered flight systems.
 6. **Data Reduction Specific Tasks** – The Contractor shall provide data reduction services, including:
 - a. Compiling and analyzing systems performance data during and after the mission
 - b. Reviewing and contributing to the implementation of proposed science data processing systems to ensure timely flow of accurate science data sets
 - c. Reviewing the design and implementation of information data systems to identify sources of science data for investigative purposes, including existing databases and newly acquired data requirements to be scheduled
 - d. Analyzing the development of data transfer systems and data status accounting systems for multiple science data processing centers
 - e. Integrating activities with the Information Systems Division (ISD)
 7. **Documentation Specific Tasks** – The Contractor shall provide post-flight summary reports, analyzing the performance of the system during flight.

F. Mission Assurance and Systems Safety Services

For all levels of flight hardware and software provided by the Contractor and specified by this Statement of Work, the Contractor shall establish and maintain a mission assurance program commensurate with mission requirements as specified by the task. The mission assurance program shall incorporate a system safety program which meets the requirements of NSTS 1700.7B, "Safety Policy and Requirements for Payloads Using the Space Transportation System" and 2.45 SPW S-100/KHB 1700.7B, "Space Shuttle Payload Ground Safety Handbook" for shuttle missions. For ELV missions at ETR or WTR, the system safety

program shall meet the requirements of EWR 127-1, "Eastern and Western Range Safety Requirements."

The contractor shall establish and maintain practices, procedures, and processes that are ISO 9001 compliant.

1. **Performance Assurance Specific Tasks** – The Contractor shall provide performance assurance services, including:
 - a. Reviewing payload designs to assure their compliance with performance assurance, reliability, and safety specifications
 - b. Developing, analyzing, and monitoring performance assurance, reliability, system safety plans, and procedures, non-flight fabrication assembly, integration and test, verification, and launch support
 - c. Analyzing basic plans for system safety, contamination control, integration, and testing of subsystems and systems

2. **Safety Specific Tasks** – The Contractor shall provide safety services which conform to the system safety/mission assurance program, including:
 - a. Establishing and documenting a systems safety plan in concert with the appropriate launch vehicle and NASA safety policy
 - b. Conducting and assessing system safety analyses for flight designs and launch/retrieval operations to satisfy NASA safety and reliability requirements
 - c. Analyzing design changes related to minimizing hazard levels
 - d. Participating in system safety reviews
 - e. Reviewing the proposed systems design to ensure that proper considerations are given to safety-critical areas, and that safety problems exposed in prior analyses, testing, and operational use of instruments and subsystems are corrected
 - f. Conducting project test/validation programs for flight and critical ground systems software
 - g. Preparing the Safety Data Package, including writing and editing
 - h. Performing hazards analysis of flight system, shuttle interface equipment, and ground support equipment
 - i. Participating in required inspection/testing to fulfill safety data requirements
 - j. Coordinating with the GSFC safety officer and participating in formal safety reviews
 - k. Preparing final safety data packages

G. Configuration Management Services

The Contractor shall provide overall management and oversight of the Configuration Management (CM), Documentation Management (DM), and Quality Control Management (QCM) disciplines

throughout the life cycle of flight hardware and software provided within the scope of this Statement of Work. Each discipline shall require the development, establishment, and implementation of procedures and processes and establishment of mechanisms and tools for consistency.

The Contractor shall support the planning, identification of processes, and leading GSFC Project efforts in these disciplines. This support shall also include the necessary planning and associated process development to assist the GSFC Project in meeting conformance requirements to NASA procedures and guidelines as well as the ISO standards

The main CM/DM/QCM functions shall include:

- Configuration identification, configuration control, configuration accounting and reporting
- configuration verification and configuration auditing
- implementation and maintenance of a DM system

The Contractor shall be responsible for providing the necessary tools and databases to accomplish the above functions; developing and establishing procedures and guidelines and training in the configuration management, documentation management, and ISO 9001 disciplines.

FUNCTION 3 – IMPLEMENTATION PHASE SERVICES - DISCIPLINE SPECIFIC SERVICES

A. Project Management

The Contractor shall provide management services, including establishment of a management organization that ensures that all assigned task objectives are accomplished within specified schedule and cost constraints. Management shall provide frequent and timely status to the Government via cost, schedule, progress and other reports during all phases of work.

B. Mission Systems Engineering

The Contractor shall provide systems engineering support for project development, reporting progress and conformance to appropriate practices and specifications (see the GPG 7120.5 Systems Engineering). This shall include:

1. **Systems Engineering Specific Tasks** – The Contractor shall perform key mission and spacecraft-level systems engineering functions that include, but are not limited to:
 - a. Operations Concept Development & Support:**
 - a1. Developing the operations concept
 - a2. Preparing/reviewing mission operations concepts in regards to the intended functionality and interfaces among the flight subsystems and the ground
 - a3. Generating Mission Operations Concept Documents (ConOps)
 - a4. Participating in user interface meetings and joint integrated mission simulation training aimed at developing viable user operations
 - a5. Supporting satellite operations
 - a6. Analyzing flight anomalies and recommending implementing appropriate actions
 - a7. Working with principal investigator and science working group in planning operations
 - a8. Supporting “lessons learned” presentations
 - a9. Preparing plans for and supporting mission disposal operations
 - b. Architecture & Design Development:**
 - b1. Defining systems and conducting trade-off studies/design studies for spacecraft, suborbital craft, instruments, space segments and ground segments
 - b2. Reviewing software development and software system test activities
 - b3. Generating and maintaining and/or reviewing system block diagrams
 - c. Requirements Analysis, Identification and Management:**
 - c1. Generating and managing and/or reviewing Level 1 and 2 requirements
 - c2. Conducting requirements traceability
 - c3. Documenting specified and lower level derived requirements to demonstrate that performance requirements are met

- c4. Reviewing/performing independent design and development requirements analyses, and submitting comments and recommendations
- c5. Reviewing technical specifications, and submitting comments and recommendations
- c6. Providing specification of Requirements for Design, non-flight fabrication, and checkout of ground support equipment
- c7. Reviewing contamination control requirements
- c8. Reviewing operating plans and procedures for cryogenics, fuels, and other hazardous materials

d. Validation and Verification:

- d1. Generating and/or reviewing Verification Plans
- d2. Performing design, drawing, and specification reviews
- d3. Providing comments and/or recommendations to ensure: 1) that designs meet specification and interface requirements, 2) that appropriate parts standards are compatible with specified mission requirements and risk levels, 3) that detailed specifications are compatible with mission requirements, including margin and error budgets, 4) and that proper consideration is given to cost, reliability, safety, non-flight fabrication requirements, contamination control, magnetic materials/interference, launch requirements, and space environmental requirements.
- d4. Documentation and/or review of system qualification requirements
- d5. Preparing and/or reviewing hardware and software integration plans and procedures, and witnessing execution
- d6. Preparing and/or reviewing detailed functional and environmental test plans and procedures, and witnessing test execution
- d7. Ensuring that the technical aspects of shipping requirements and equipment are met
- d8. Preparing and/or reviewing plans for launch site checkout, integration and testing of flight systems, including adequacy of the launch site facility
- d9. Analyzing data from spacecraft telemetry data sources to ensure total system compatibility
- d10. Analyzing Flight performance from flight data

e. Interfaces and ICDs:

- e1. Reviewing and analyzing design interfaces
- e2. Identifying interface control requirements for engineering and design of components for launch, on orbit servicing, or retrieval of flight hardware
- e3. Preparing, reviewing, and analyzing interface documentation for mission systems
- e4. Preparing interface control documents and verifying proper implementation for flight and ground subsystems and systems
- e5. Controlling external interface documentation and requirements

f. Mission Environments:

f1. Defining and/or reviewing subsystem and hardware specifications to ensure that they meet the specific mission or spacecraft environment. Mission or spacecraft environment includes the following discipline areas:

- Mechanical systems
- Electrical systems
- EMI/EMC
- Grounding
- Thermal
- Radiation shielding
- Parts engineering
- Contamination
- Reliability
- Charging
- Timing and time distribution
- Data rates
- Safety
- Orbital debris assessment

g. Technical Resource Budget Tracking:

- g1. Documenting and controlling and/or Review of budget plans, including power, thermal, data storage, computer processing and communication through-put , attitude control, timing, mass properties, etc., both at the flight system level and allocated to lower levels of assembly; this shall include error margins, where applicable
- g2. Documenting command and telemetry signal margin plan, including bit error rates

h. Risk Analysis, Reduction, and Management:

- h1. Identifying high risk elements and developing/executing contingency plans for controlling the high risk elements
- h2. Reviewing contractor risk management plans and commenting on alternate approaches

i. System Milestone Review Candidates:

- i1. Conducting and documenting internal design reviews
- i2. Supporting standards definition and review
- i3. Attending and conducting technical meetings/design reviews, and submitting comments and recommendations
- i4. Preparing and presenting of technical information for technical conferences/reviews/briefings

j. Configuration Management and Documentation:

- j1. Analyzing configuration, design, anomaly resolutions, and procedural changes submitted to change control boards. Providing the services and functions stated in Section G of this document.

k. Systems Engineering Management Plan:

- k1. Generating System Engineering Management Plans (SEMP)
- k2. Documenting/reviewing system, subsystem and organizational processes in terms of ISO compliance and CMMI assessments
- k3. Developing or reviewing existing systems engineering tools for applicability as required
- k4. Review of Fabrication Plans

C. Instrument Systems Engineering

The Contractor shall provide instrument systems engineering support for project development, reporting progress and conformance to appropriate practices and specifications (see the GPG 7120.5 Systems Engineering). This shall include:

1. **Systems Engineering Specific Tasks**– The Contractor shall perform key Instrument systems engineering functions that include, but not limited to:

a. Instrument Data Processing Development & Support:

- a1. Developing Instrument data processing concept.
- a2. Developing hardware and software designs for the Instrument Data Processing Center.
- a3. Performing Systems analysis of Instrument Data Processing Center to verify performance.
- a4. Developing Instrument operations concept.
- a5. Supporting instrument operations.
- a6. Analyzing flight anomalies and recommending implementing appropriate actions.
- a7. Working with principal investigator and science working group in planning operations.
- a8. Supporting “lessons learned” presentations post-launch.

b. Instrument Architecture & Design Development:

- b1. Defining systems and conducting trade-off studies/design studies for instruments, space segments and ground segments.
- b2. Developing Instrument Architecture.
- b3. Reviewing subsystem development and test activities.
- b4. Generating and maintaining and/or reviewing system block diagrams.

c. Requirements Analysis, Identification and Management:

- c1. Generating and managing and/or reviewing Level 1 and 2 requirements.
- c2. Conducting requirements traceability.
- c3. Documenting specified and lower level derived requirements to demonstrate that performance requirements are met.
- c4. Reviewing/performing independent design and development requirements analyses, and submitting comments and recommendations.
- c5. Reviewing technical specifications, and submitting comments and recommendations.
- c6. Providing specification of Requirements for Design, non-flight fabrication, and checkout of ground support equipment.
- c7. Reviewing contamination control requirements.
- c8. Reviewing operating plans and procedures for cryogenics, and other hazardous materials.

d. Validation and Verification:

- d1. Generating and/or reviewing Verification Plans.
- d2. Performing design, drawing, and specification reviews.
- d3. Providing comments and/or recommendations to ensure: 1) that designs meet specification and interface requirements, 2) that appropriate parts standards are compatible with specified mission requirements and risk levels, 3) that detailed specifications are compatible with mission requirements, including margin and error budgets, 4) and that proper consideration is given to cost, reliability, safety, non-flight fabrication requirements, contamination control, magnetic materials/interference, launch requirements, and space environmental requirements.
- d4. Documentation and/or review of system qualification requirements.
- d5. Preparing and/or reviewing hardware and software integration plans and procedures, and witnessing execution.
- d6. Preparing and/or reviewing detailed functional and environmental test plans and procedures, and witnessing test execution.
- d7. Ensuring that the technical aspects of shipping requirements and equipment are met.
- d8. Preparing and/or reviewing plans for launch site checkout, integration and testing of flight systems, including adequacy of the launch site facility.
- d9. Analyzing data from spacecraft telemetry data sources to ensure total system compatibility.
- d10. Analyzing Flight performance from flight data.

e. Interfaces and ICDs:

- e1. Reviewing and analyzing design interfaces.
- e2. Identifying interface control requirements for engineering and design of hardware for launch, on orbit servicing, or retrieval of flight hardware.
- e3. Preparing, reviewing, and analyzing interface documentation for Instrument systems.
- e4. Preparing interface control documents and verifying proper implementation for flight and ground Instrument subsystems and systems.

e5. Controlling external interface documentation and requirements

f. Mission Environments:

f1. Defining and/or reviewing subsystem and hardware specifications to ensure that they meet the specific mission environment. Mission environment includes the following discipline areas:

- Mechanical systems
- Electrical systems
- EMI/EMC
- Grounding
- Thermal
- Radiation shielding
- Parts engineering
- Contamination
- Reliability
- Charging
- Timing and time distribution
- Data rates
- Safety
- Orbital debris assessment

g. Technical Resource Budget Tracking:

- g1. Documenting and controlling and/or Review of budget plans, including power, thermal, data storage, computer processing and communication through-put , attitude control, timing, mass properties, etc., both at the flight system level and allocated to lower levels of assembly; this shall include error margins, where applicable
- g2. Documenting command and telemetry signal margin plan, including bit error rates

h. Risk Analysis, Reduction, and Management:

- h1. Identifying high risk elements and developing/executing contingency plans for controlling the high risk elements
- h2. Reviewing contractor risk management plans and commenting on alternate approaches

i. System Milestone Review Candidates:

- i1. Conducting and documenting internal design reviews
- i2. Supporting standards definition and review
- i3. Attending and conducting technical meetings/design reviews, and submitting comments and recommendations
- i4. Preparing and presenting of technical information for technical conferences/reviews/briefings

j. Configuration Management and Documentation:

- j1. Analyzing configuration, design, and procedural changes submitted to change control boards

k. Systems Engineering Management Plan:

- k1. Generating System Engineering Management Plans (SEMP)
- k2. Documenting/reviewing system, subsystem and organizational processes in terms of ISO compliance and CMMI assessments
- k3. Developing or reviewing existing systems engineering tools for applicability as required
- k4. Review of Fabrication Plans

D. Optical Engineering Services

The Contractor shall provide, on an as-needed basis, engineering services for state-of-the-art optical systems. These services shall include, for example, the design, development and analysis of optical components, diffraction and stray light/energy analyses, component/system alignment and/or calibration, and/or other services, as required.

E. Detector Engineering Services

The Contractor shall provide, on an as-needed basis, engineering services for state-of-the-art X-Ray, Gamma Ray, Visible, RF, and Microwave detection systems requiring low noise levels and calibrations traceable to physical standards. These services shall include, for example, Field Programmable Gate Arrays design and analyses, and/or other services, as required.

F. Software Specific Services

The Contractor shall provide software design services, including the design, development, analysis, coding, and testing:

- a. Real-time flight system control, monitoring and data processing, command and data handling, attitude determination and control, power subsystem control and monitoring, science data collection, processing, storage, and downlink, including:
 - 1. Command and control
 - 2. Data conditioning and communication
 - 3. Subsystem control and status
 - 4. Automated system protection
 - 5. In-flight scientific data processing and analysis

6. Embedded software
7. Guidance Navigation and Control design
8. Sensors and Actuators hardware and software development
9. Space vehicle formation control software

- b. Flight system simulation and modeling software
- c. Ground and flight system software
- d. Science support software data systems and application software
- e. Instrument software
- f. Information management-based system and associated application software to accomplish:
 1. Problem reporting
 2. Resource and schedule tracking
 3. Configuration management (software and hardware)
 4. System/subsystem integration and qualification status lists

G. Data Systems Management Services

The Contractor shall provide data systems management services, including:

- a. Ensuring that all software (ground and/or flight) packages and associated interfaces are being properly managed and problems adequately identified and resolved.
- b. Developing, reviewing, and analyzing software requirements and specifications
- c. Analyzing software designs and design interfaces and making recommendations for solutions in specific problem areas
- d. Reviewing, analyzing, evaluating, and preparing data systems documentation such as feasibility studies, automatic data processing (ADP) plans, design, design interfaces, procedure handbooks, and other documentation materials
- e. Defining systems for end-to-end data processing
- f. Developing schedules for the data processing system in the areas of milestone development, network planning, milestone real-time tracking, and schedule impact analysis
- g. Contributing to the design, development, validation, implementation, certification, and maintenance of ground or on-board computer system simulators/emulators, including validation of flight systems software for ascent, transfer, or on-orbit phases and near real-time reprogramming and validation of modifications for recovery from anomalous situations
- h. Analyzing the design and implementation of simulators/emulators for ground crew training, systems testing and procedure validation

H. Guidance, Navigation and Control (GN&C) Engineering Services

The Contractor shall provide GN&C engineering support for all phases of project development, monitoring and reporting progress and conformance to appropriate practices and specifications. This shall include:

1. **GN&C Systems Engineering Specific Tasks** – The Contractor shall perform specific GN&C systems engineering tasks that include:
 - a. Flight Project GN&C Subsystem Engineering, including requirements development; analysis; trade studies; ICD development; verification and validation; risk management; general coordination of all GN&C elements; maintenance of mass, power, and pointing budgets; operations planning
 - b. GN&C Conceptual Design, Modeling and Simulation
 - c. GN&C Science and Instrument Interface Engineering
 - d. Spacecraft Reentry Systems Engineering
 - e. Re-entry Debris Analysis, Modeling and Simulation
 - f. GN&C Engineering Support to Integrated Mission Design Center (IMDC)
 - g. Advanced GN&C Systems Technology Development, including the design, analysis, non-flight fabrication, assembly, and test of hardware and/or software
 - h. Advanced GN&C Testbeds, Tools and Methods Development
 - i. Balloon, UAV and Sounding Rocket GN&C Engineering
 - j. Formation Flying Test Bed (FFTB) Design and Development
 - k. Technical Consultation and Support (Proposals, Peer, Design, and Anomaly Reviews)

2. **Flight Dynamics Engineering Specific Tasks** – The Contractor shall perform specific Flight Dynamics engineering tasks that include:
 - a. Attitude Design, Analysis and Simulation
 - b. Trajectory Design, Analysis and Simulation
 - c. Attitude Control Design, Analysis and Simulation
 - d. Trajectory Control Design, Analysis and Simulation
 - e. Vehicle Guidance Analysis and Algorithm Design, Analysis and Simulation
 - f. Space and Launch Vehicle Dynamics Analysis and Simulation
 - g. Control/Structure Interaction Analysis and Simulation
 - h. Mission (Attitude and Trajectory) Planning and Design
 - i. Attitude and Trajectory Estimation Design, Analysis and Simulation
 - j. Aerodynamics Design, Analysis and Simulation
 - k. Space Vehicle Autonomous Control Design, Analysis and Simulation
 - l. Formation Flying/Constellation Flight Dynamics Design, Analysis and Simulation
 - m. Flight Dynamics Technology Development
 - n. Flight Dynamics Catalog/Database Maintenance

3. **Component and Hardware Systems Engineering Specific Tasks** – The Contractor shall perform specific GN&C component and hardware systems engineering tasks that include:

- a. Advanced GN&C Sensor /Actuator Design, Development, and Test

4. **Propulsion Engineering Specific Tasks** – The Contractor shall perform specific spacecraft propulsion systems engineering tasks that include:

- a. Spacecraft Propulsion Subsystem Engineering
- b. Advanced Propulsion Technology Development, including advanced chemical propulsion, electrical propulsion (EP), MEMS, micro-propulsion components; test equipment and instrumentation to support development & testing of sub-microN thrusters
- c. Fluid Systems Engineering including transient flow, vapor diffusion, fluid slosh and plume impingement analyses
- d. Power & Electric Propulsion System Engineering, including low thrust trajectory design; EP system design & trades; EMI testing, analysis and mitigation
- e. Nanocalorimetry
- f. Propulsion Chemical Analyses
- g. Propulsion GSE Design and Development
- h. Propulsion System Engineering Support to IMDC and advanced mission studies
- i. Propulsion System Engineering Support to Flight Project, including technical consultations and engineering support for design reviews, analyses, proposal development, and anomaly resolution. Data Acquisition Engineer, including software and hardware design, development and test.
- j. Mechanical and Thermal Engineering Support specific to propulsion system design and analysis.

5. **Propulsion System Technician Specific Tasks** - The Contractor shall perform specific spacecraft propulsion system technician tasks that include:

- a. Mechanical Technician tasks for the fabrication, assembly, integration and test of propulsion subsystems, including subsystem manifold fabrication, precision cleaning, certified welding, integration of propulsion subsystem components, and clean room operation
- b. Electrical Technician tasks for the fabrication, assembly, integration and test of propulsion subsystems, including certified soldering, crimping, staking, harness fabrication, electrical component test and integration.
- c. Advanced Propulsion Technology Development Technician tasks, including conducting micro-Newton thrust stand tests; vacuum system assembly, maintenance and operation; chemical handling; fluid system assembly and operation.

I. Robotics Specific Services

The Contractor shall provide engineering support for all phases of robotic project development. These shall include:

- a. Articulated Mechanism Dynamics
- b. Force Feedback Control
- c. Remote Teleoperation
- d. Machine Vision
- e. Range Sensor Processing
- f. Motion Planning
- g. Collision Prediction
- h. Gravity Compensation

FUNCTION 4 – RESEARCH AND TECHNOLOGY SERVICES

The contractor shall provide advanced research and technology support to MESA, EED, ISD, ISTD, and related organizations. These services may include development, test and analysis work in support of the Research and Technology activities.

A. Instrument Systems Technology Services

The Contractor shall provide research, design, development, and testing, and analysis services for instrument systems, including:

1. **Instrument Systems Specific Tasks**– The Contractor shall provide services for the research and development of advanced analytical, engineering, integration, testing, and software engineering techniques including:
 - A. Instrument Systems Performance modeling
 - B. X-Ray, Ultraviolet, Optical, and Infrared Instrument systems performance testing and analysis
 - C. Particle and field Instrument design development and analysis
 - D. Instrument Systems signal to noise analysis
 - E. Advanced hyperspectral imaging concepts
 - F. Microwave and submillimeter wave radiometer advanced concepts and performance modeling
 - G. Lossless and lossy compression algorithms
 - H. Science data archival formats
 - I. Science data distribution methods
 - J. Instrument applications of computational optics
 - K. Synthetic Aperture Radar advanced concepts
 - L. Computational Image enhancement
 - M. Autonomous Instrument systems

B. Instrument Electronics Systems Technology Services

The Contractor shall provide services for research, design, development, test, and analysis of advanced signal processing electronics for space flight systems, including support for language-based microelectronics development. The Contractor shall provide services for sensor signal processing technology tasks, digital signal processing technology tasks and advanced applications technology tasks.

C. Computer Support Technology Services

The Contractor shall provide computer technology services, including:

1. **Computer Support Specific Tasks** – The Contractor shall provide computer technology services, including:
 - a. Engineering support to analyze data acquisition, processing, distribution, archival/storage, and measurement problems
 - b. Data reduction to include statistical and thematic trends analyses
 - c. Diagnostics assistance for instrument checkout between test consoles and test components
 - d. Program services to utilize test instruments in aerospace system test and analysis, including GPIB type operation and GUI based software system
 - e. General in-house computer software maintenance to include, but not be limited to, updating and debugging programs
 - f. Design, coding, integration, test, documentation, and maintenance of special applications programs
 - g. Updating of existing technical in-house computer databases
 - h. Transfer of programs from one system to another and testing for functional operations and real time data transfer between dissimilar systems
 - i. Debugging of general utility programs, such as graphic packages
 - j. Assistance in analyzing and implementing solutions to computer hardware interface problems
 - k. Assistance in network and operating system configurations, troubleshooting, installation, and maintenance
 - l. Design and debug of test procedures

2. **IT Systems Security and System Administrator Function** – The contractor shall provide Windows, Macintosh, Linux, UNIX, Web, LAN systems administration services to desktops, workstations and servers, including:
 - a. Logging, reporting, diagnosing and correcting system faults
 - b. Configuring systems for performance, security and network compatibility
 - c. Performing updates of the operating system and associated software for desktops and workstations
 - d. Assisting in the preparation and updating of IT security and system administration documentation
 - e. Working with the Code 297, CNE, and SET on implementing IT security initiatives
 - f. Assisting users with software/hardware installation
 - g. Performing Help Desk functions including problem diagnosis and answering user questions regarding applications
 - h. Monitoring system and network security and availability
 - i. Repairing workstations, desktops and printers on an emergency basis
 - j. Data backup, archive, and retrieval

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 arbitrative 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.

3. **Web Page Development and Maintenance Function** – The contractor shall provide web development services to help promote organizational capabilities, including:
 - a. Development, maintenance, and upgrade of web sites
 - b. Management of mission test facilities that require significant computer capabilities
 - c. Compliance to Agency and Center policy (GSFC Webmaster) such as 508 compliance and Post 9-11 accessibility compatibility
 - d. Defining with customer the look and feel of the web site, and reviewing web site requirements
 - e. Developing prototype web sites for maturing web based concepts
 - f. Providing maintenance services to keep web site up to date and compliant

D. Software Systems Technology Services

The Contractor shall provide technology services for the research and development of advanced software topics, including:

1. **Software Systems Technology Specific Tasks** – The Contractor shall provide services for research, design, development, implementation, test, and analysis of software systems technology, including:
 - a. Automation and artificial intelligence applications
 - b. Software engineering
 - c. Distributed processing
 - d. Internet applications
 - e. Flight software
 - f. Scientific data analysis
 - g. Visualization and virtual environments
 - h. Data processing, archival and distribution
 - i. Simulation and modeling
 - j. Human-computer interfaces
 - k. Middleware
 - l. Software standards
 - m. Software methodologies
 - n. Reuse

E. Demonstration, Presentation and Conference Services

The Contractor shall provide technology services for hardware and software demonstrations, technical/project/conference presentations, and conference planning/implementation for items within the scope of this Statement of Work, including:

1. **Demonstration Specific Tasks** – The Contractor shall provide hardware, software, support equipment, and technical services for onsite and offsite demonstrations.
2. **Presentation Specific Tasks** – The Contractor shall provide materials for inclusion in technical/project/conference presentations, including viewgraphs, information, photographs, etc. In addition, the Contractor shall perform the presentation.
3. **Conference Specific Tasks** – The Contractor shall assist the Government by providing services in the planning and implementation of conferences.

F. Systems Technology Services

The Contractor shall provide services for the research and development of advanced technologies for end-to-end mission architectures, systems, subsystems, components, devices, and elements for spacecraft, balloons, UAV's, sounding rockets, instruments, and other platforms, including:

1. Technology Validation
2. Technology Infusion
3. Technology State-of-the-Art and Gap Analyses
4. Strategic Technology Planning and Roadmapping
5. Technology Study/Proposal Support
6. Technology Infrastructure/Facility Requirements Planning
7. Technology Special Studies, including the development and refinement of technology enabled missions
8. Technology Tracking, Documentation and Reporting
9. Technology Prototyping

The Contractor shall provide these services for the research and technology support for a broad range of systems technologies, including, but not limited to, the following:

1. Distributed Space System Concepts
2. Autonomous constellation operations and control systems
3. Modular spacecraft concepts
4. Reconfigurable Space Systems
5. Solar sails
6. Sparse aperture large space telescopes
7. Sensor webs and data driven sensing networks
8. Ultra Low Power Systems
9. Design for demise concepts
10. Satellite servicing

FUNCTION 5 – DOCUMENTATION SERVICES

The Contractor shall provide documentation services for all levels of hardware and software within the scope of this Statement of Work, as specified in task assignments. Documents shall conform to applicable documents and specifications. These shall include pertinent NHBs, SMAP, and/or Program/Project specific performance assurance guidelines, quality standards, GSFC standards, documents of other NASA Centers, Federal standards, military standards, and commercial standards.

A. Document Services

The Contractor shall provide documentation services, including instrument conceptual designs, program plans, systems analyses, illustrations, technical and implementation plans, test plans, test procedures, test scripts, software documentation, and the full range of system hardware and software documentation. These shall also include up-to-date drawings, specifications, certifications, reports, interface control documents, and agreements.

1. **Document Services Specific Tasks** – The Contractor shall provide electronic media and document services, including:
 - a. Technical writing
 - b. Editing
 - c. Drafting
 - d. CAD/CAM
 - e. Photographic
 - f. Video
 - g. Reproduction
 - h. CD, DVD
 - i. Posters and Displays

2. **Photo and Video Specific Tasks** – The Contractor shall use photos and video for maintenance, engineering, or as documentation to explain a problem. They shall become supplemental to assist in unit repair or future development and maintenance. A scale shall be included to indicate relative dimensions in photographs and/or video, where appropriate.

FUNCTION 6 – MAINTENANCE SERVICES

The Contractor shall provide maintenance support to ensure long term reliability through an integrated and efficient approach, including:

A. Preventive Maintenance

The Contractor shall perform preventative maintenance on hardware and software within the scope of this Statement of Work as specified in task assignments.

B. Emergency Repair Services

The Contractor shall provide expeditious emergency repair services for hardware and software within the scope of this Statement of Work, as specified in task assignments. The Contractor shall respond to the Government within four hours of notification to determine and implement a mutually agreeable course of action. In some cases, there shall be 24-hour coverage during flight hardware and software evaluation, verification, and test. This service shall comprise of repair, modification, or replacement of components, codes, subassemblies, and assemblies. Documentation updates shall be required as a result of any change.

FUNCTION 7 – SUSTAINING ENGINEERING SERVICES

The Contractor shall provide sustaining engineering services for hardware and software within the scope of this Statement of Work, including:

1. Modifications of hardware/firmware and software, including installation of elements for improved reliability and/or performance
2. Modifications of wiring to improve circuit performance
3. Non-flight fabrication, assembly, wiring, and testing of printed circuit assemblies where necessary to update old circuitry or improve reliability
4. Engineering, non-flight fabrication, testing of assemblies or sub-assemblies to replace outdated circuitry to eliminate component or circuit failures
5. Engineering, non-flight fabrication, assembly, and testing of engineering circuits to correct problems encountered
6. Modifications of mechanical assemblies, structures, and mechanisms to correct or improve the design
7. Update of drawings, manuals, and technical data to reflect current status at the time of modifications
8. Firmware and software modifications in response to approved changes, including problem fixes.

FUNCTION 8 – EDUCATION SERVICES

The Contractor shall provide education services, including:

1. Supporting the AETD Systems Engineering Education and Development (SEED) program
2. Supporting educational outreach programs with universities and NASA headquarters
3. Supporting MESA, ISD, ISTD, EED division or branch-level educational programs and training

FUNCTION 9 – STANDARDS AND PROCESS

The Contractor shall provide support for engineering standards work and engineering process work, including:

1. International Standard Organization (ISO) documentation and process generation
2. Engineering standards documentation and review
3. Engineering process documentation
4. Activities in support of engineering process improvement

These work shall include providing support for software and systems engineering capability assessment and improvement services such as “Software Initiative to implement Capability Maturity Model Integrated (CMMI),” “Support to the Software Engineering Process Group (SEPG),” “Tasks in support of the Systems Engineering Working Group (SEWG),” “Tasks in support of the Software Working Group (SWG),” and Systems Engineering process improvement activities.

APPLICABLE DOCUMENTS AND SPECIFICATIONS

The contractor shall adhere to all applicable portions of the following documents and/or specifications in the performance of this contract. The latest updated version shall apply:

General:

NPR 7120.5B, "NASA Program and Project Management Processes and Requirements"

Launch Vehicles:

EWR 127-1, "Eastern and Western Range Safety Requirements"

NSTS 1700.7B, "Safety Policy and Requirements for Payloads Using the Space Transportation System"

2.45 SPW S-100/KHB 1700.7B, "Space Shuttle Payload Ground Safety Handbook"

Conformal Coating and Staking:

NASA-STD-8739.1, "Workmanship Standard for Staking and Conformal Coating of Printed Wiring Boards and Electronic Assemblies"

Soldering – Flight, Surface Mount Technology:

NASA-STD-8739.2, "Surface Mount Technology"

Soldering – Flight, Manual (hand):

NASA-STD-8739.3, "Soldered Electrical Connections"

Soldering – Ground Systems:

Association Connecting Electronics Industries (IPC)/Electronics Industry Alliance (EIA)
J-STD-001C, "Requirements for Soldered Electrical and Electronic Assemblies"

Electronic Assemblies – Ground Systems:

IPC-A-610, "Acceptability of Electronic Assemblies"

Crimping, Wiring, and Harnessing:

NASA-STD-8739.4, "Crimping, Interconnecting Cables, Harnesses, and Wiring"

Fiber Optics:

NASA-STD-8739.5, "Fiber Optic Terminations, Cable Assemblies, and Installation"

Electro-Static Discharge (ESD) Control:

ANSI/ESD S20.20, "Protection of Electrical and Electronic Parts, Assemblies and Equipment" (excluding electrically initiated explosive devices)

Printed Wiring Board (PWB) Design:

500-PG-8700.2.2, Electronics Design and Development Guidelines
500-PG-8700.2.4, Mechanical Design and Development Guidelines,
GSFC X-673-64-1F, "Engineering Drawing Standards Manual" (December 1994)
IPC-2221, "Generic Standard on Printed Board Design"
IPC-2222, "Sectional Design Standard for Rigid Organic Printed Boards"
IPC-2223, "Sectional Design Standard for Flexible Printed Boards"
IPC D-275 "Design Standard for Rigid Printed Boards and Rigid Printed Board Assemblies"

PWB Manufacture:

GSFC 311-INST-002, "Instructions for EEE Parts Selection, Screening, and Qualification"
IPC A-600, "Acceptability of Printed Boards"
IPC-6011, "Generic Performance Specification for Printed Boards"
IPC-6012, "Qualification and Performance Specification for Rigid Printed Boards"
Flight Applications – Supplemented with: GSFC/S312-P-003, Procurement Specification for Rigid Printed Boards for Space Applications and Other High Reliability Uses
IPC-6013 "Qualification and Performance Specification for Flexible Printed Boards"
IPC-6018 "Microwave End Product Board Inspection and Test"

IT System Administration

NASA PIC 04-03, "04-03 Procurement Information Circular"

REFERENCE DOCUMENTS AND SPECIFICATIONS

The following documents and/or specifications are provided as reference material for the performance of this contract. The latest updated version shall apply:

SP-6105, The NASA Systems Engineering Handbook, June 1995

NNG05CA99C
Attachment B

ATTACHMENT B

**DIRECT LABOR RATES, INDIRECT RATES, AND
AWARD FEE MATRICES
&
POSITION DESCRIPTIONS**

NNG05CA99C

(6/04)



B 1. PRIME (SGT, Inc.) DIRECT LABOR RATE MATRIX (For All Task Orders):

The Contractor shall not exceed the rates as specified below for pricing all task orders contemplated or issued in accordance with Clause H.9, Task Ordering Procedures. Any task orders issued in accordance with Clause H.9 will be applied to the guaranteed minimum quantity and maximum quantity as provided in Clause B.2

++ Labor Categories	*CY 1 HR Rate	CY 2 HR Rate	CY 3 HR Rate	CY 4 HR Rate	CY 5 HR Rate	CY 6 HR Rate
On-Site Labor Rates						
Program Manager						
Business Operations Manager						
Mission Assurance and Safety Officer						
Group Lead, GN&C Engineering						
Group Lead, Information Systems						
Group Lead, Instrument Systems						
Group Lead, Mission Systems						
Administrative Assistant						
Contract Specialist						
Resource Analyst						
Technical Typist						
Technical Recruiter						
Communications Systems Engineer						
Data Systems Engineer						
Detector/Instrument Systems Engineer						
Instrument Manager/Project Engineer						
Scientist						
Flight Operations Systems Engineer						
Sr. Flight Operations Systems Engineer						
Principal Flight Operations Systems Engr						
Ground Systems Engineer						
Mission Systems Engineer						
Power Systems Engineer						
Spacecraft Systems Engineer						
Senior Staff Engineer						
Principal Staff Engineer						
Chief Staff Engineer						
Systems Engineer						
Senior Systems Engineer						
Principal Systems Engineer						
Chief Systems Engineer						
GN&C Systems Engineer						
Junior Engineer						
Electrical Engineer						
Senior Electrical Engineer						
Electro-Optical Engineer						
Environmental Test Engineer						
GN&C Engineer						
Senior GN&C Engineer						
Junior Flight Dynamics Engineer						



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++ Labor Categories	*CY 1 HR Rate	CY 2 HR Rate	CY 3 HR Rate	CY 4 HR Rate	CY 5 HR Rate	CY 6 HR Rate
Flight Dynamics Engineer						
Senior Flight Dynamics Engineer						
Integration and Test Engineer						
Manufacturing Engineer						
Mechanical Engineer						
Senior Mechanical Engineer						
Propulsion Engineer						
Mission/Orbit Analyst						
Optical Analyst						
Controls Analyst						
Thermal Engineer						
CAD/Draftsman						
Detector/Lab Technician						
Electrical/Electronic Designer						
Electrical/Electronic Technician						
Sr. Electrical/Electronic Technician						
Senior Machinist						
Mechanical Designer						
Mechanical Technician						
Optical Technician						
Parts/Materials Technician						
Propulsion Technician						
Electrical Assembler						
Computer Systems Engr/System Administrator Analyst/Software						
Junior Software Engineer						
Software Engineer						
Senior Software Engineer						
Principal Software Engineer						
Flight Software Engineer						
Senior Flight Software Engineer						
Principal Flight Software Engineer						
Software Test Specialist						
Software CM Specialist						
CM Specialist						
Quality Assurance Engineer						
Reliability Engineer						
Safety Engineer						
Senior Safety Engineer						
Training and Development Coordinator						
Education Outreach Specialist						
Multimedia Specialist						
Technical Writer						

++ Labor Categories – The Offeror shall provide loaded unit labor categories, which apply to the representative task orders and the SOW. Clearly delineate on-site and off-site rates.

*CY = Contract Year
 HR = Hourly Rate: These are not-to-exceed rates for pricing prime contractor task orders. The Contractor may propose lower rates when pricing task orders.



1. PRIME (SGT, Inc.) DIRECT LABOR RATE MATRIX (For All Task Orders):

The Contractor shall not exceed the rates as specified below for pricing all task orders contemplated or issued in accordance with Clause H.9, Task Ordering Procedures. Any task orders issued in accordance with Clause H.9 will be applied to the guaranteed minimum quantity and maximum quantity as provided in Clause B.2

++ Labor Categories	*CY 1 HR Rate	CY 2 HR Rate	CY 3 HR Rate	CY 4 HR Rate	CY 5 HR Rate	CY 6 HR Rate
Off-Site Labor Rates						
Program Manager						
Business Operations Manager						
Mission Assurance and Safety Officer						
Group Lead, GN&C Engineer						
Group Lead, Information Systems						
Group Lead, Instrument Systems						
Group Lead, Mission Systems						
Administrative Assistant						
Contract Specialist						
Resource Analyst						
Technical Typist						
Technical Recruiter						
Communications Systems Engineer						
Data Systems Engineer						
Detector/Instrument Systems Engineer						
Instrument Manager/Project Engineer						
Scientist						
Flight Operations Systems Engineer						
Sr. Flight Operations Systems Engineer						
Principal Flight Operations Systems Engr						
Ground Systems Engineer						
Mission Systems Engineer						
Power Systems Engineer						
Spacecraft Systems Engineer						
Senior Staff Engineer						
Principal Staff Engineer						
Chief Staff Engineer						
Systems Engineer						
Senior Systems Engineer						
Principal Systems Engineer						
Chief Systems Engineer						
GN&C Systems Engineer						
Junior Engineer						
Electrical Engineer						
Senior Electrical Engineer						
Electro-Optical Engineer						
Environmental Test Engineer						
GN&C Engineer						
Senior GN&C Engineer						
Junior Flight Dynamics Engineer						
Flight Dynamics Engineer						
Senior Flight Dynamics Engineer						



++ Labor Categories	*CY 1 HR Rate	CY 2 HR Rate	CY 3 HR Rate	CY 4 HR Rate	CY 5 HR Rate	CY 6 HR Rate
Integration and Test Engineer						
Manufacturing Engineer						
Mechanical Engineer						
Senior Mechanical Engineer						
Propulsion Engineer						
Mission/Orbit Analyst						
Optical Analyst						
Controls Analyst						
Thermal Engineer						
CAD/Draftsman						
Detector/Lab Technician						
Electrical/Electronic Designer						
Electrical/Electronic Technician						
Sr. Electrical/Electronic Technician						
Senior Machinist						
Mechanical Designer						
Mechanical Technician						
Optical Technician						
Parts/Materials Technician						
Propulsion Technician						
Electrical Assembler						
Computer Systems Engr/System Admin						
Data Analyst/Software						
Junior Software Engineer						
Software Engineer						
Senior Software Engineer						
Principal Software Engineer						
Flight Software Engineer						
Senior Flight Software Engineer						
Principal Flight Software Engineer						
Software Test Specialist						
Software CM Specialist						
CM Specialist						
Quality Assurance Engineer						
Reliability Engineer						
Safety Engineer						
Senior Safety Engineer						
Training and Development Coordinator						
Education Outreach Specialist						
Multimedia Specialist						
Technical Writer						

++ Labor Categories – The Offeror shall provide loaded direct labor categories, which apply to the representative task orders and the SOW. Clearly delineate on-site and off-site rates.

*CY = Contract Year

HR = Hourly Rate: These are not-to-exceed rates for pricing prime contractor task orders.

The Contractor may propose lower rates when pricing task orders.



ATTACHMENT B.2. INDIRECT RATES SCHEDULE

B.2. PRIME (SGT, Inc.) INDIRECT COST RATE MATRIX (For All Task Orders):

The Contractor shall not exceed the bid rates as specified below for pricing all task orders contemplated or issued in accordance with Clause H.9, Task Ordering Procedures (see Clause B.3, Limitation of Indirect Costs, for ceilings on reimbursement of indirect costs). Any task orders issued in accordance with Clause H.9 will be applied to the guaranteed minimum quantity and maximum quantity as provided in Clause B.2

***Indirect Expenses	*CY 1	CY 2	CY 3	CY 4	CY 5	CY 6

**Indirect Expenses – The Offeror shall complete all indirect categories, which apply to the representative task orders and the SOW. Clearly delineate on-site and off-site rates.

*CY=Contract Year



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ATTACHMENT B.3. AWARD FEE RATE MATRIX

B 3. PRIME (SGT, Inc.) AWARD FEE RATE MATRIX (For All Task Orders):

****Award Fee Rate	*CY 1	CY 2	CY 3	CY 4	CY 5	CY 6
Team SGT Award Fee Rate	8.75%	8.75%	8.75%	8.75%	8.75%	8.75%

****The Offeror shall complete the award fee rate, which shall be used to calculate the maximum available award fee for all task orders issued under the resultant contract.

*CY=Contract Year



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Systems, Software, and Enabling Technologies*

ATTACHMENT B.4. SUBCONTRACTOR LOADED LABOR RATE MATRIX



4. SUBCONTRACTOR (Northrop Grumman) LOADED LABOR RATE MATRIX (For All Task Orders):

The Contractor shall not exceed the rates as specified below for pricing the subcontractor labor hours on all task orders contemplated or issued in accordance with Clause H.9, Task Ordering Procedures. Any task orders issued in accordance with Clause H.9 will be applied to the guaranteed minimum quantity and maximum quantity as provided in Clause B.2

Table with 7 columns: ++ Labor Categories, *CY 1 HR Rate, CY 2 HR Rate, CY 3 HR Rate, CY 4 HR Rate, CY 5 HR Rate, CY 6 HR Rate. Rows include Goddard On-Site Loaded Labor Rates, Program Manager, Business Operations Manager, Mission Assurance & Safety Manager, Group Lead, GN&C Engineer, Group Lead, Information Systems, Group Lead, Instrument Systems, Group Lead, Mission Systems, Administrative Assistant, Contract Specialist, Resource Analyst, Technical Typist, Technical Recruiter, Communications Systems Engineer, Data Systems Engineer, Detector/Instrument Systems Engineer, Instrument Manager/Project Engineer, Scientist, Flight Operations Systems Engineer, Senior Flight Operations Systems Engineer, Principal Flight Operations Systems Engineer, Ground Systems Engineer, Mission Systems Engineer, Power Systems Engineer, Spacecraft Systems Engineer, Senior Staff Engineer, Principal Staff Engineer, Chief Staff Engineer, Systems Engineer, Senior Systems Engineer.



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++ Labor Categories	*CY 1 HR Rate	CY 2 HR Rate	CY 3 HR Rate	CY 4 HR Rate	CY 5 HR Rate	CY 6 HR Rate
Goddard On-Site Loaded Labor Rates						
Principal Systems Engineer						
Chief Systems Engineer						
Guidance, Navigation & Control Systems Engineer						
Junior Engineer						
Electrical Engineer						
Senior Electrical Engineer						
Electro-Optical Engineer						
Environmental Test Engineer						
Guidance, Navigation & Control Engineer						
Senior Guidance, Navigation & Control Engineer						
Junior Flight Dynamics Engineer						
Flight Dynamics Engineer						
Senior Flight Dynamics Engineer						
Integration and Test Engineer						
Manufacturing Engineer						
Mechanical Engineer						
Senior Mechanical Engineer						
Propulsion Engineer						
Mission/Orbit Analyst						
Optical Analyst						
Controls Analyst						
Thermal Engineer						
CAD/Draftsman						
Detector/Lab Technician						
Electrical/Electronic Designer						
Electrical/Electronic Technician						
Senior Electrical/Electronic Technician						
Senior Machinist						
Mechanical Designer						
Mechanical Technician						
Optical Technician						
Parts/Materials Technician						
Propulsion Technician						
Electrical Assembler						
Computer Systems Engineer/System Administrator						
Data Analyst/Software						



++ Labor Categories	*CY 1 HR Rate	CY 2 HR Rate	CY 3 HR Rate	CY 4 HR Rate	CY 5 HR Rate	CY 6 HR Rate
Goddard On-Site Loaded Labor Rates:						
Junior Software Engineer						
Software Engineer						
Senior Software Engineer						
Principal Software Engineer						
Flight Software Engineer						
Senior Flight Software Engineer						
Principal Flight Software Engineer						
Software Test Specialist						
Software Configuration Management Specialist						
Configuration Management Specialist						
Quality Assurance Engineer						
Reliability Engineer						
Safety Engineer						
Senior Safety Engineer						
Training and Development Coordinator						
Education Outreach Specialist						
Multimedia Specialist						
Technical Writer						

++ Labor Categories – The Offeror shall provide loaded direct labor categories, which apply to the representative task orders and the SOW. Clearly delineate on-site and off-site rates.

*CY = Contract Year

HR = Hourly Rate: These are not-to-exceed rates for pricing subcontractor labor hours. The Contractor may propose lower rates when pricing task orders.



4. SUBCONTRACTOR (Northrop Grumman) LOADED LABOR RATE MATRIX (For All Task Orders):

The Contractor shall not exceed the rates as specified below for pricing the subcontractor labor hours on all task orders contemplated or issued in accordance with Clause H.9, Task Ordering Procedures. Any task orders issued in accordance with Clause H.9 will be applied to the guaranteed minimum quantity and maximum quantity as provided in Clause B.2

Table with 7 columns: ++ Labor Categories, *CY 1 HR Rate, CY 2 HR Rate, CY 3 HR Rate, CY 4 HR Rate, CY 5 HR Rate, CY 6 HR Rate. Rows include Goddard Off-Site Loaded Labor Rates, Program Manager, Business Operations Manager, Mission Assurance & Safety Manager, Group Lead, GN&C Engineer, Group Lead, Information Systems, Group Lead, Instrument Systems, Group Lead, Mission Systems, Administrative Assistant, Contract Specialist, Resource Analyst, Technical Typist, Technical Recruiter, Communications Systems Engineer, Data Systems Engineer, Detector/Instrument Systems Engineer, Instrument Manager/Project Engineer, Scientist, Flight Operations Systems Engineer, Senior Flight Operations Systems Engineer, Principal Flight Operations Systems Engineer, Ground Systems Engineer, Mission Systems Engineer, Power Systems Engineer, Spacecraft Systems Engineer, Senior Staff Engineer, Principal Staff Engineer, Chief Staff Engineer, Systems Engineer, Senior Systems Engineer.



SGT Team

A Trusted GSFC Team Delivering Mission Systems, Software, and Enabling Technologies

++ Labor Categories	*CY 1 HR Rate	CY 2 HR Rate	CY 3 HR Rate	CY 4 HR Rate	CY 5 HR Rate	CY 6 HR Rate
Goddard Off-Site Loaded Labor Rates						
Principal Systems Engineer						
Chief Systems Engineer						
Guidance, Navigation & Control Systems Engineer						
Junior Engineer						
Electrical Engineer						
Senior Electrical Engineer						
Electro-Optical Engineer						
Environmental Test Engineer						
Guidance, Navigation & Control Engineer						
Senior Guidance, Navigation & Control Engineer						
Junior Flight Dynamics Engineer						
Flight Dynamics Engineer						
Senior Flight Dynamics Engineer						
Integration and Test Engineer						
Manufacturing Engineer						
Mechanical Engineer						
Senior Mechanical Engineer						
Propulsion Engineer						
Mission/Orbit Analyst						
Optical Analyst						
Controls Analyst						
Thermal Engineer						
CAD/Draftsman						
Detector/Lab Technician						
Electrical/Electronic Designer						
Electrical/Electronic Technician						
Senior Electrical/Electronic Technician						
Senior Machinist						
Mechanical Designer						
Mechanical Technician						
Optical Technician						
Parts/Materials Technician						
Propulsion Technician						
Electrical Assembler						
Computer Systems Engineer/System Administrator						
Data Analyst/Software						



SGT Team

A Trusted GSFC Team Delivering Mission Systems, Software, and Enabling Technologies

++ Labor Categories	*CY 1 HR Rate	CY 2 HR Rate	CY 3 HR Rate	CY 4 HR Rate	CY 5 HR Rate	CY 6 HR Rate
Goddard Off-Site Loaded Labor Rates						
Junior Software Engineer						
Software Engineer						
Senior Software Engineer						
Principal Software Engineer						
Flight Software Engineer						
Senior Flight Software Engineer						
Principal Flight Software Engineer						
Software Test Specialist						
Software Configuration Management Specialist						
Configuration Management Specialist						
Quality Assurance Engineer						
Reliability Engineer						
Safety Engineer						
Senior Safety Engineer						
Training and Development Coordinator						
Education Outreach Specialist						
Multimedia Specialist						
Technical Writer						

++ Labor Categories – The Offeror shall provide loaded direct labor categories, which apply to the representative task orders and the SOW. Clearly delineate on-site and off-site rates.

*CY = Contract Year

HR = Hourly Rate: These are not-to-exceed rates for pricing subcontractor labor hours. The Contractor may propose lower rates when pricing task orders.



3.4. SUBCONTRACTOR (Orbital Sciences Corporation) LOADED LABOR RATE MATRIX (For All Task Orders):

The Contractor shall not exceed the rates as specified below for pricing the subcontractor labor hours on all task orders contemplated or issued in accordance with Clause H.9, Task Ordering Procedures. Any task orders issued in accordance with Clause H.9 will be applied to the guaranteed minimum quantity and maximum quantity as provided in Clause B.2

++ Labor Categories	*CY 1 HR Rate	CY 2 HR Rate	CY 3 HR Rate	CY 4 HR Rate	CY 5 HR Rate	CY 6 HR Rate
On-Site Loaded Labor Rates						
Program Manager						
Business Operations Manager						
Mission Assurance and Safety Officer						
Group Lead, GN&C Engineering						
Group Lead, Information Systems						
Group Lead, Instrument Systems						
Group Lead, Mission Systems						
Administrative Assistant						
Contract Specialist						
Resource Analyst						
Technical Typist						
Technical Recruiter						
Communications Systems Engineer						
Data Systems Engineer						
Detector/Instrument Systems Engineer						
Instrument Manager/Project Engineer						
Scientist						
Flight Operations Systems Engineer						
Sr. Flight Operations Systems Engineer						
Principal Flight Operations Systems Engr						
Ground Systems Engineer						
Mission Systems Engineer						
Power Systems Engineer						
Spacecraft Systems Engineer						
Senior Staff Engineer						
Principal Staff Engineer						
Chief Staff Engineer						
Systems Engineer						
Senior Systems Engineer						
Principal Systems Engineer						
Chief Systems Engineer						
GN&C Systems Engineer						
Junior Engineer						
Electrical Engineer						



SGT Team

A Trusted GSFC Team Delivering Mission Systems, Software, and Enabling Technologies

++ Labor Categories	*CY 1 HR Rate	CY 2 HR Rate	CY 3 HR Rate	CY 4 HR Rate	CY 5 HR Rate	CY 6 HR Rate
Senior Electrical Engineer						
Electro-Optical Engineer						
Environmental Test Engineer						
GN&C Engineer						
Senior GN&C Engineer						
Junior Flight Dynamics Engineer						
Flight Dynamics Engineer						
Senior Flight Dynamics Engineer						
Integration and Test Engineer						
Manufacturing Engineer						
Mechanical Engineer						
Senior Mechanical Engineer						
Propulsion Engineer						
Mission/Orbit Analyst						
Optical Analyst						
Controls Analyst						
Thermal Engineer						
CAD/Draftsman						
Detector/Lab Technician						
Electrical/Electronic Designer						
Electrical/Electronic Technician						
Sr. Electrical/Electronic Technician						
Senior Machinist						
Mechanical Designer						
Mechanical Technician						
Optical Technician						
Parts/Materials Technician						
Propulsion Technician						
Electrical Assembler						
Computer Systems Engr/System Admin						
Data Analyst/Software						
Junior Software Engineer						
Software Engineer						
Senior Software Engineer						
Principal Software Engineer						
Flight Software Engineer						
Senior Flight Software Engineer						
Principal Flight Software Engineer						
Software Test Specialist						
Software CM Specialist						
CM Specialist						
Quality Assurance Engineer						
Reliability Engineer						
Safety Engineer						



SGT Team

A Trusted GSFC Team Delivering Mission Systems, Software, and Enabling Technologies

++ Labor Categories	*CY 1 HR Rate	CY 2 HR Rate	CY 3 HR Rate	CY 4 HR Rate	CY 5 HR Rate	CY 6 HR Rate
Senior Safety Engineer						
Training and Development Coordinator						
Education Outreach Specialist						
Multimedia Specialist						
Technical Writer						

++ Labor Categories – The Offeror shall provide loaded direct labor categories, which apply to the representative task orders and the SOW. Clearly delineate on-site and off-site rates.

*CY = Contract Year

HR = Hourly Rate: These are not-to-exceed rates for pricing subcontractor labor hours.

The Contractor may propose lower rates when pricing task orders.



4. SUBCONTRACTOR (Orbital Sciences Corporation) LOADED LABOR RATE MATRIX (For All Task Orders):

The Contractor shall not exceed the rates as specified below for pricing the subcontractor labor hours on all task orders contemplated or issued in accordance with Clause H.9, Task Ordering Procedures. Any task orders issued in accordance with Clause H.9 will be applied to the guaranteed minimum quantity and maximum quantity as provided in Clause B.2

Table with 7 columns: ++ Labor Categories, *CY 1 HR Rate, CY 2 HR Rate, CY 3 HR Rate, CY 4 HR Rate, CY 5 HR Rate, CY 6 HR Rate. Rows include Off-Site Loaded Labor Rates, Program Manager, Business Operations Manager, Mission Assurance and Safety Officer, Group Lead (GN&C, Information Systems, Instrument Systems, Mission Systems), Administrative Assistant, Contract Specialist, Resource Analyst, Technical Typist, Technical Recruiter, Communications Systems Engineer, Data Systems Engineer, Detector/Instrument Systems Engineer, Instrument Manager/Project Engineer, Scientist, Flight Operations Systems Engineer, Sr. Flight Operations Systems Engineer, Principal Flight Operations Systems Engr, Ground Systems Engineer, Mission Systems Engineer, Power Systems Engineer, Spacecraft Systems Engineer, Senior Staff Engineer, Principal Staff Engineer, Chief Staff Engineer, Systems Engineer, Senior Systems Engineer, Principal Systems Engineer, Chief Systems Engineer, N&C Systems Engineer, Junior Engineer.



SGT Team

A Trusted GSFC Team Delivering Mission Systems, Software, and Enabling Technologies

++ Labor Categories	*CY 1 HR Rate	CY 2 HR Rate	CY 3 HR Rate	CY 4 HR Rate	CY 5 HR Rate	CY 6 HR Rate
Electrical Engineer						
Senior Electrical Engineer						
Electro-Optical Engineer						
Environmental Test Engineer						
GN&C Engineer						
Senior GN&C Engineer						
Junior Flight Dynamics Engineer						
Flight Dynamics Engineer						
Senior Flight Dynamics Engineer						
Integration and Test Engineer						
Manufacturing Engineer						
Mechanical Engineer						
Senior Mechanical Engineer						
Propulsion Engineer						
Mission/Orbit Analyst						
Optical Analyst						
Controls Analyst						
Thermal Engineer						
CAD/Draftsman						
Detector/Lab Technician						
Electrical/Electronic Designer						
Electrical/Electronic Technician						
Sr. Electrical/Electronic Technician						
Senior Machinist						
Mechanical Designer						
Mechanical Technician						
Optical Technician						
Parts/Materials Technician						
Propulsion Technician						
Electrical Assembler						
Computer Systems Engr/System Admin						
Data Analyst/Software						
Junior Software Engineer						
Software Engineer						
Senior Software Engineer						
Principal Software Engineer						
Flight Software Engineer						
Senior Flight Software Engineer						
Principal Flight Software Engineer						
Software Test Specialist						
Software CM Specialist						
CM Specialist						
Quality Assurance Engineer						



SGT Team

A Trusted GSFC Team Delivering Mission Systems, Software, and Enabling Technologies

++ Labor Categories	*CY 1 HR Rate	CY 2 HR Rate	CY 3 HR Rate	CY 4 HR Rate	CY 5 HR Rate	CY 6 HR Rate
Reliability Engineer						
Safety Engineer						
Senior Safety Engineer						
Training and Development Coordinator						
Education Outreach Specialist						
Multimedia Specialist						
Technical Writer						

++ Labor Categories – The Offeror shall provide loaded direct labor categories, which apply to the representative task orders and the SOW. Clearly delineate on-site and off-site rates. *CY = Contract Year HR = Hourly Rate: These are not-to-exceed rates for pricing subcontractor labor hours. The Contractor may propose lower rates when pricing task orders.



B4. SUBCONTRACTOR (Raytheon Technical Services Company, LLC) LOADED LABOR RATE MATRIX (For All Task Orders):

The Contractor shall not exceed the rates as specified below for pricing the subcontractor labor hours on all task orders contemplated or issued in accordance with Clause H.9, Task Ordering Procedures. Any task orders issued in accordance with Clause H.9 will be applied to the guaranteed minimum quantity and maximum quantity as provided in Clause B.2

++ Labor Categories	*CY 1 HR Rate	CY 2 HR Rate	CY 3 HR Rate	CY 4 HR Rate	CY 5 HR Rate	CY 6 HR Rate
On-Site Loaded Labor Rates						
Program Manager						
Business Operations Manager						
Mission Assurance and Safety Officer						
Group Lead, GN&C Engineer						
Group Lead, Information Systems						
Group Lead, Instrument Systems						
Group Lead, Mission Systems						
Administrative Assistant						
Contract Specialist						
Resource Analyst						
Technical Typist						
Technical Recruiter						
Communications Systems Engineer						
Data Systems Engineer						
Detector/Instrument Systems Engineer						
Instrument Manager/Project Engineer						
Scientist						
Flight Operations Systems Engineer						
Sr. Flight Operations Systems Engineer						
Principal Flight Operations Systems Engr						
Ground Systems Engineer						
Mission Systems Engineer						
Power Systems Engineer						
Spacecraft Systems Engineer						
Senior Staff Engineer						
Principal Staff Engineer						
Chief Staff Engineer						
Systems Engineer						
Senior Systems Engineer						
Principal Systems Engineer						
Chief Systems Engineer						
GN&C Systems Engineer						
Junior Engineer						
Electrical Engineer						
Senior Electrical Engineer						
Electro-Optical Engineer						
Environmental Test Engineer						
GN&C Engineer						
Senior GN&C Engineer						
Junior Flight Dynamics Engineer						



SGT Team

A Trusted GSFC Team Delivering Mission Systems, Software, and Enabling Technologies

++ Labor Categories	*CY 1 HR Rate	CY 2 HR Rate	CY 3 HR Rate	CY 4 HR Rate	CY 5 HR Rate	CY 6 HR Rate
Flight Dynamics Engineer						
Senior Flight Dynamics Engineer						
Integration and Test Engineer						
Manufacturing Engineer						
Mechanical Engineer						
Senior Mechanical Engineer						
Propulsion Engineer						
Mission/Orbit Analyst						
Optical Analyst						
Controls Analyst						
Thermal Engineer						
CAD/Draftsman						
Detector/Lab Technician						
Electrical/Electronic Designer						
Electrical/Electronic Technician						
Sr. Electrical/Electronic Technician						
Senior Machinist						
Mechanical Designer						
Mechanical Technician						
Optical Technician						
Parts/Materials Technician						
Propulsion Technician						
Electrical Assembler						
Computer Systems Engr/System Admin						
Data Analyst/Software						
Junior Software Engineer						
Software Engineer						
Senior Software Engineer						
Principal Software Engineer						
Flight Software Engineer						
Senior Flight Software Engineer						
Principal Flight Software Engineer						
Software Test Specialist						
Software CM Specialist						
CM Specialist						
Quality Assurance Engineer						
Reliability Engineer						
Safety Engineer						
Senior Safety Engineer						
Training and Development Coordinator						
Education Outreach Specialist						
Multimedia Specialist						
Technical Writer						

++ Labor Categories – The Offeror shall provide loaded direct labor categories, which apply to the representative task orders and the SOW. Clearly delineate on-site and off-site rates.

CY = Contract Year

R = Hourly Rate: These are not-to-exceed rates for pricing subcontractor labor hours.

The Contractor may propose lower rates when pricing task orders.



SGT Team

A Trusted GSFC Team Delivering Mission Systems, Software, and Enabling Technologies

B4. SUBCONTRACTOR (Raytheon Technical Services Company LLC) LOADED LABOR RATE MATRIX (For All Task Orders):

The Contractor shall not exceed the rates as specified below for pricing the subcontractor labor hours on all task orders contemplated or issued in accordance with Clause H.9, Task Ordering Procedures. Any task orders issued in accordance with Clause H.9 will be applied to the guaranteed minimum quantity and maximum quantity as provided in Clause B.2

++ Labor Categories	*CY 1 HR Rate	CY 2 HR Rate	CY 3 HR Rate	CY 4 HR Rate	CY 5 HR Rate	CY 6 HR Rate
Off-Site Loaded Labor Rates						
Program Manager						
Business Operations Manager						
Mission Assurance and Safety Officer						
Group Lead, GN&C Engineer						
Group Lead, Information Systems						
Group Lead, Instrument Systems						
Group Lead, Mission Systems						
Administrative Assistant						
Contract Specialist						
Resource Analyst						
Technical Typist						
Technical Recruiter						
Communications Systems Engineer						
Data Systems Engineer						
Detector/Instrument Systems Engineer						
Instrument Manager/Project Engineer						
Scientist						
Flight Operations Systems Engineer						
Sr. Flight Operations Systems Engineer						
Principal Flight Operations Systems Engr						
Ground Systems Engineer						
Mission Systems Engineer						
Power Systems Engineer						
Spacecraft Systems Engineer						
Senior Staff Engineer						
Principal Staff Engineer						
Chief Staff Engineer						
Systems Engineer						
Senior Systems Engineer						
Principal Systems Engineer						
Chief Systems Engineer						
GN&C Systems Engineer						
Junior Engineer						
Electrical Engineer						
Senior Electrical Engineer						
Electro-Optical Engineer						
Environmental Test Engineer						
GN&C Engineer						
Senior GN&C Engineer						
Junior Flight Dynamics Engineer						



SGT Team

A Trusted GSFC Team Delivering Mission Systems, Software, and Enabling Technologies

++ Labor Categories	*CY 1 HR Rate	CY 2 HR Rate	CY 3 HR Rate	CY 4 HR Rate	CY 5 HR Rate	CY 6 HR Rate
Flight Dynamics Engineer						
Senior Flight Dynamics Engineer						
Integration and Test Engineer						
Manufacturing Engineer						
Mechanical Engineer						
Senior Mechanical Engineer						
Propulsion Engineer						
Mission/Orbit Analyst						
Optical Analyst						
Controls Analyst						
Thermal Engineer						
CAD/Draftsman						
Detector/Lab Technician						
Electrical/Electronic Designer						
Electrical/Electronic Technician						
Sr. Electrical/Electronic Technician						
Senior Machinist						
Mechanical Designer						
Mechanical Technician						
Optical Technician						
Parts/Materials Technician						
Propulsion Technician						
Electrical Assembler						
Computer Systems Engr/System Admin						
Data Analyst/Software						
Junior Software Engineer						
Software Engineer						
Senior Software Engineer						
Principal Software Engineer						
Flight Software Engineer						
Senior Flight Software Engineer						
Principal Flight Software Engineer						
Software Test Specialist						
Software CM Specialist						
CM Specialist						
Quality Assurance Engineer						
Reliability Engineer						
Safety Engineer						
Senior Safety Engineer						
Training and Development Coordinator						
Education Outreach Specialist						
Multimedia Specialist						
Technical Writer						

++ Labor Categories – The Offeror shall provide loaded direct labor categories, which apply to the representative task orders and the SOW. Clearly delineate on-site and off-site rates.

*CY = Contract Year

HR = Hourly Rate: These are not-to-exceed rates for pricing subcontractor labor hours.

The Contractor may propose lower rates when pricing task orders.



SGT Team

A Trusted GSFC Team Delivering Mission Systems, Software, and Enabling Technologies

SGT Team Position Descriptions for METS

No.	Position	Code	Description	Education	Experience
1	Program Manager (Critical Position)	M			
2	Business Operations Manager (Critical Position)	M			
3	Mission Assurance and Safety Officer (Critical Position)	M			
4	Group Lead, Guidance, Navigation, and Control Engineering (Critical Position)	M			

A = Administrative; DE = Discipline Engineering; ED = Education/Documentation; M = Management;
 SE = Systems Engineering; SMA = Safety, Reliability, Mission Assurance; SWE = Software Engineering; T = Technician



SGT Team

A Trusted GSFC Team Delivering Mission Systems, Software, and Enabling Technologies

Nb.	Position	Code	Description	Education	Experience
5	Group Lead, Information Systems (Critical Position)	M.			
6	Group Lead, Instrument Systems (Critical Position)	M.			
7	Group Lead, Mission Systems (Critical Position)	M			

A = Administrative; DE = Discipline Engineering; ED = Education/Documentation; M = Management;
 SE = Systems Engineering; SMA = Safety, Reliability, Mission Assurance; SWE = Software Engineering; T = Technician



No.	Position	Code	Description	Education	Experience
8	Administrative Assistant	A			
9	Contract Specialist	A			
10	Resource Analyst	A			
11	Technical Typist	A			
12	Technical Recruiter	A			

A = Administrative; DE = Discipline Engineering; ED = Education/Documentation; M = Management;
 SE = Systems Engineering; SMA = Safety, Reliability, Mission Assurance; SWE = Software Engineering; T = Technician



SGT Team

A Trusted GSFC Team Delivering Mission Systems, Software, and Enabling Technologies

No.	Position	Code	Description	Education	Experience
13	Communications Systems Engineer	SE			
14	Data Systems Engineer	SE			
15	Detector/Instrument Systems Engineer (Critical Position)	SE			
16	Instrument Manager/Project Engineer	SE			
17	Scientist	SE			

A = Administrative; DE = Discipline Engineering; ED = Education/Documentation; M = Management;
 SE = Systems Engineering; SMA = Safety, Reliability, Mission Assurance; SWE = Software Engineering; T = Technician



SGT Team

A Trusted GSFC Team Delivering Mission Systems, Software, and Enabling Technologies

No.	Position	Code	Description	Education	Experience
18	Flight Operations Systems Engineer	SE			
19	Senior Flight Operations Systems Engineer	SE			
20	Principal Flight Operations Systems Engineer	SE			
21	Ground Systems Engineer	SE			
22	Mission Systems Engineer (Critical Position)	SE			

A = Administrative; DE = Discipline Engineering; ED = Education/Documentation; M = Management;
 SE = Systems Engineering; SMA = Safety, Reliability, Mission Assurance; SWE = Software Engineering; T = Technician

July 9, 2004



SGT Team

A Trusted GSFC Team Delivering Mission Systems, Software, and Enabling Technologies

No.	Position	Code	Description	Education	Experience
23	Power Systems Engineer	SE			
24	Spacecraft Systems Engineer	SE			
25	Senior Staff Engineer	SE			
26	Principal Staff Engineer	SE			

A = Administrative; DE = Discipline Engineering; ED = Education/Documentation; M = Management; SE = Systems Engineering; SMA = Safety, Reliability, Mission Assurance; SWE = Software Engineering; T = Technician



SGT Team

A Trusted GSFC Team Delivering Mission Systems, Software, and Enabling Technologies

No.	Position	Code	Description	Education	Experience
27	Chief Staff Engineer	SE			
28	Systems Engineer	SE			
29	Senior Systems Engineer	SE			
30	Principal Systems Engineer	SE			

A = Administrative; DE = Discipline Engineering; ED = Education/Documentation; M = Management;
 SE = Systems Engineering; SMA = Safety, Reliability, Mission Assurance; SWE = Software Engineering; T = Technician



SGT Team

A Trusted GSFC Team Delivering Mission Systems, Software, and Enabling Technologies

No.	Position	Code	Description	Education	Experience
31	Chief Systems Engineer (Critical Position)	SE			
32	Guidance, Navigation, and Control Systems Engineer (Critical Position)	SE			
33	Junior Engineer	DE			
34	Electrical Engineer	DE			

A = Administrative; DE = Discipline Engineering; ED = Education/Documentation; M = Management;
 SE = Systems Engineering; SMA = Safety, Reliability, Mission Assurance; SWE = Software Engineering; T = Technician



SGT Team

Experiences

Education

Description

No.	Position	Code
35	Senior Electrical Engineer	DE
36	Electro-Optical Engineer	DE
37	Environmental Test Engineer	DE
38	Guidance, Navigation, and Control Engineer	DE
39	Senior Guidance, Navigation, and Control Engineer	DE

A = Administrative; DE = Discipline Engineering; ED = Education/Documentation; M = Management; SE = Systems Engineering; SMA = Safety, Reliability, Mission Assurance; SWE = Software Engineering; T = Technician.



No.	Position	Code	Description	Education	Experience
40	Junior Flight Dynamics Engineer	DE			
41	Flight Dynamics Engineer	DE			
42	Senior Flight Dynamics Engineer	DE			
43	Integration and Test Engineer	DE			

A = Administrative; DE = Discipline Engineering; ED = Education/Documentation; M = Management;
 SE = Systems Engineering; SMA = Safety, Reliability, Mission Assurance; SWE = Software Engineering; T = Technician



SGT Team

A Trusted GSFC Team Delivering Mission Systems, Software, and Enabling Technologies

No.	Position	Code	Description	Education	Experience
44	Manufacturing Engineer	DE			
45	Mechanical Engineer	DE			
46	Senior Mechanical Engineer	DE			
47	Propulsion Engineer	DE			
48	Mission/Orbit Analyst	DE			

A = Administrative; DE = Discipline Engineering; ED = Education/Documentation; M = Management;
 SE = Systems Engineering; SMA = Safety, Reliability, Mission Assurance; SWE = Software Engineering; T = Technician



No.	Position	Code	Description	Education	Experience
49	Optical Analyst	DE			
50	Controls Analyst	DE			
51	Thermal Engineer	DE			
52	CAD/Draftsman	T			
53	Detector/Lab Technician	T			

A = Administrative; DE = Discipline Engineering; ED = Education/Documentation; M = Management;
 SE = Systems Engineering; SMA = Safety, Reliability, Mission Assurance; SWE = Software Engineering; T = Technician



No.	Position	Code	Description	Education	Experience
54	Electrical/Electronic Designer	T			
55	Electrical/Electronic Technician	T			
56	Senior Electrical/Electronic Technician	T			
57	Senior Machinist	T			
58	Mechanical Designer	T			
59	Mechanical Technician	T			

A = Administrative; DE = Discipline Engineering; ED = Education/Documentation; M = Management;
 SE = Systems Engineering; SMA = Safety, Reliability, Mission Assurance; SWE = Software Engineering; T = Technician



SGT Team

A Trusted GSFC Team Delivering Mission Systems, Software, and Enabling Technologies

No.	Position	Code	Description	Education	Experience
60	Optical Technician	T			
61	Parts/Materials Technician	T			
62	Propulsion Technician	T			
63	Electrical Assembler	T			
64	Computer Systems Engineer/System Administrator	SWE			
65	Data Analyst/Software	SWE			
66	Junior Software Engineer	SWE			

A = Administrative; DE = Discipline Engineering; ED = Education/Documentation; M = Management;
 SE = Systems Engineering; SMA = Safety, Reliability, Mission Assurance; SWE = Software Engineering; T = Technician



SGT Team

A Trusted GSFC Team Delivering Mission Systems, Software, and Enabling Technologies

No.	Position	Code	Description	Education	Experience
67	Software Engineer	SWE			
68	Senior Software Engineer	SWE			
69	Principal Software Engineer	SWE			
70	Flight Software Engineer	SWE			

A = Administrative; DE = Discipline Engineering; ED = Education/Documentation; M = Management;
 SE = Systems Engineering; SMA = Safety, Reliability, Mission Assurance; SWE = Software Engineering; T = Technician



No.	Position	Code	Description	Education	Experience
71	Senior Flight Software Engineer	SWE			
72	Principal Flight Software Engineer (Critical Position)	SWE			
73	Software Test Specialist	SWE			
74	Software Configuration Management Specialist	SWE			
75	Configuration Management Specialist	SMA			
76	Quality Assurance Engineer	SMA			

A = Administrative; DE = Discipline Engineering; ED = Education/Documentation; M = Management;
 SE = Systems Engineering; SMA = Safety, Reliability, Mission Assurance; SWE = Software Engineering; T = Technician



No.	Position	Code	Description	Education	Experience
77	Reliability Engineer	SMA			
78	Safety Engineer	SMA			
79	Senior Safety Engineer	SMA			
80	Training & Development Coordinator	ED			
81	Education Outreach Specialist	ED			

A = Administrative; DE = Discipline Engineering; ED = Education/Documentation; M = Management;
 SE = Systems Engineering; SMA = Safety, Reliability, Mission Assurance; SWE = Software Engineering; T = Technician



SGT Team

A Trusted GSFC Team Delivering Mission Systems, Software, and Enabling Technologies

Nbr.	Position	Code	Description	Education	Experience
82	Multimedia Specialist	ED			
83	Technical Writer	ED			

A = Administrative; DE = Discipline Engineering; ED = Education/Documentation; M = Management;
 SE = Systems Engineering; SMA = Safety, Reliability, Mission Assurance; SWE = Software Engineering; T = Technician



++ Labor Categories	*CY1 HR Rate	CY 2 HR Rate	CY 3 HR Rate	CY 4 HR Rate	CY 5 HR Rate	CY 6 HR Rate
Electrical Engineer						
Senior Electrical Engineer						
Electro-Optical Engineer						
Environmental Test Engineer						
GN&C Engineer						
Senior GN&C Engineer						
Junior Flight Dynamics Engineer						
Flight Dynamics Engineer						
Senior Flight Dynamics Engineer						
Integration and Test Engineer						
Manufacturing Engineer						
Mechanical Engineer						
Senior Mechanical Engineer						
Propulsion Engineer						
Mission/Orbit Analyst						
Optical Analyst						
Controls Analyst						
Thermal Engineer						
CAD/Draftsman						
Detector/Lab Technician						
Electrical/Electronic Designer						
Electrical/Electronic Technician						
Sr. Electrical/Electronic Technician						
Senior Machinist						
Mechanical Designer						
Mechanical Technician						
Optical Technician						
Parts/Materials Technician						
Propulsion Technician						
Electrical Assembler						
Computer Systems Engr/System Admin						
Data Analyst/Software						
Junior Software Engineer						
Software Engineer						
Senior Software Engineer						
Principal Software Engineer						
Flight Software Engineer						
Senior Flight Software Engineer						
Principal Flight Software Engineer						
Software Test Specialist						
Software CM Specialist						
CM Specialist						
Quality Assurance Engineer						



++ Labor Categories	*CY1 HR Rate	CY 2 HR Rate	CY 3 HR Rate	CY 4 HR Rate	CY 5 HR Rate	CY 6 HR Rate
Reliability Engineer						
Safety Engineer						
Senior Safety Engineer						
Training and Development Coordinator						
Education Outreach Specialist						
Multimedia Specialist						
Technical Writer						

++ Labor Categories – The Offeror shall provide loaded direct labor categories, which apply to the representative task orders and the SOW. Clearly delineate on-site and off-site rates.

***CY = Contract Year**

HR = Hourly Rate: These are not-to-exceed rates for pricing subcontractor labor hours. The Contractor may propose lower rates when pricing task orders.

FINANCIAL MANAGEMENT REPORTING REQUIREMENTS

General

Financial Management Reports shall be submitted by the Contractor on the NASA 533 series reports, in accordance with the instructions on the reverse of the forms, NASA Procedures and Guidelines NPR 9501.2D entitled, "NASA Contractor Financial Management Reporting," effective date May 23, 2001, and additional instructions issued by the Contracting Officer.

a. Level of Detail

The Contractor's 533 reports shall contain a summary of total contract costs, as well as a separate 533 sheet for each Task Order. The reports shall contain a breakdown of each area by element of cost, i.e. direct labor hours/dollars (by category), overhead, general & administrative (G&A), travel, equipment, material, and other direct costs.

The government reserves the right to require a lower level of 533 reporting for particular task orders on a case by case basis as specified by the CO. The purpose of this is to allow the government to separate costs on task orders that support multiple WBS elements on in-house instruments and/or missions.

b. Distribution

The Contractor shall distribute 533 reports to each addressee indicated in the Basic Contract Clause G.1 FINANCIAL MANAGEMENT REPORTING. These reports shall be distributed no later than the fifteenth (15) calendar day following the month being reported.

c. Reporting Requirements

Each report shall provide cost data for reporting categories presented below:

Direct Labor Hours

Onsite

(List applicable labor categories)

Offsite

(List applicable labor categories)

Direct Labor Dollars

Onsite

(List according to applicable labor categories)

Offsite

(List according to applicable labor categories)

Total Direct Labor Hours On-site

Total Direct Labor Hours Off-site

Total Prime's Hours

Teaming Subcontractor Hours

Subcontractor Hours

Total Labor Hours

Total Direct Labor Onsite

Total Direct Labor Offsite

Total Onsite Overhead

Total Offsite Overhead

Total Overhead Prime

Other Direct Costs

Material

Subcontractors

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Travel
Miscellaneous
Total ODC's

Subtotal (Direct Cost plus Overhead)

Team Member Costs

Subcontractor Administration Charge

G&A Expense

Total Cost

Award Fee

Total Cost Plus Award Fee (CPAF)

The 533 for each task order shall report direct labor hours by category.

d. Other Special Reports

The Contractor shall submit, as required, special cost or manpower reports either in the areas of actuals, projections or both. These reports may take the form of labor, overhead, other direct charges, billing analyses or other business information. When required, specific instructions will be provided by the Contracting Officer.

e. Additional Requirements

1. Before the summary 533 sheet, the Contractor shall submit a financial summary containing a one-line summary for all tasks on the contracts. It shall include the following columns:

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Task Number
Status

Cumulative to Date Actual \$
Cumulative to Date Actual \$ Plus Month 1 planned \$
Contractor Estimate \$
Cumulative to Date Planned Hours
Cumulative to Date Actual On-site Hours
Cumulative to Date Actual Off-site Hours (Including Subs)

2. In addition to the hardcopy of the summary sheet, the Contractor shall provide the summary sheet in an e-mail file or on a 3.5" diskette as a comma-delimited text file. Below are the requirements:

The contractor cost data for import into the CORTS2 application will come from the contractor as a comma-delimited text file. The file should be saved as the name of ContractorCost.txt. The lay out of the import file is shown in the table below.

Only one contract can be included in one import file.

The contractor cost data can be loaded from the file either in the CORTS2 director of the C drive or in the Disk Drive (A:\)

Two types of data will be included in the import file: column title and column data.

Column titles must be provided in the first row for each data column in the import file. The name and order of each column title must be exactly the same as illustrated in the "Column Title in File" column in the table below, with a comma as a delimiter. Please note that the data for the Contract Number and Task Number must be within double quotes to indicate that they are text data. In the event of no data, enter the default data as specified in the table.

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Two tables will be updated in CORTS2: Task Summary and Task Information.

The Report Ending Date is in the MM/YYYY format and must be the previous month of the current import date. If it's not, no data will be imported into CORTS2.

When task number exists, the task will be treated as an existing task and the associated task summary amount fields will be overwritten with the corresponding amounts in the import file. The prorated rules will then be applied to all task detail records. Please see the attached Import Scenarios for detail.

When a task number does not exist, a new task summary record and associated task detail record will be created as described in the Import Scenarios as attached.

No deletion will be performed in this process.

Data Element Name	Column Title In File	Type	Size	Value (0-optional, 9-	Mandatory	Default	Comments
Report Ending Date	ReportDate	Text	7	99/9999	Yes		Must be the previous month of the current import date.
Contract Number	ContractNo	Text	5	99999	Yes		
Task Number	TaskNumber	Text	7	0009.0	Yes		
Cumulative Cost	CumCost	Integer	9	000000000	No	0	
Accrued Cost	AccruedCost	Integer	9	000000000	No	0	
Cost Estimate	CostEstimate	Integer	9	000000000	No	0	
Hours Estimated	EstHours	Integer	9	000000000	No	0	
On Site Hours	OnSiteHours	Integer	9	000000000	No	0	
Off Site Hours	OffSiteHours	Integer	9	000000000	No	0	

The contractor will use the Task Order Management System (TOMS) for submitting individual task Contractor Task Reports in PDF format and possibly individual task 533's in the future.

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ATTACHMENT D

DD Form 254, Contract Security Classification Specification

THIS DD FORM 254 IS FOR PRE-AWARD PURPOSES ONLY -- DRAFT"

**DEPARTMENT OF DEFENSE
CONTRACT SECURITY CLASSIFICATION SPECIFICATION**
(The requirements of the DoD Industrial Security Manual apply)

1. CLEARANCE AND SAFEGUARDING

a. FACILITY CLEARANCE REQUIRED
Secret
b. LEVEL OF SAFEGUARDING REQUIRED
None

2. THIS SPECIFICATION IS FOR: (X and complete as applicable)

a. PRIME CONTRACT NUMBER
NNG05CA99C
b. SUBCONTRACT NUMBER
c. SOLICITATION OR OTHER Due Date (YYMMDD)

3. THIS SPECIFICATION IS: (X and complete as applicable)

a. ORIGINAL (Complete date in all cases) Date (YYMMDD)
b. REVISED (Supersedes all previous specs) Revision No. Date (YYMMDD)
FINAL (Complete Item 5 in all cases) Date (YYMMDD)

4. IS THIS A FOLLOW-ON CONTRACT? YES NO

NO. If Yes, complete the following:

Classified material received or generated under NAS5-99124 (Preceding Contract Number) are transferred to this follow-on contract.

5. IS THIS A FINAL DD FORM 254? YES NO

NO. If Yes, complete the following:

In response to the contractor's request dated _____, retention of the classified material is authorized for the period _____

6. CONTRACTOR (Include Commercial and Government Entity (CAGE) Code)

a. NAME, ADDRESS, AND ZIP CODE
TBD
b. CAGE
c. COGNIZANT SECURITY OFFICE (Name, Address, and Zip)
Defense Security Service

7. SUBCONTRACTOR

a. NAME, ADDRESS, AND ZIP CODE
b. CAGE
c. COGNIZANT SECURITY OFFICE (Name, Address, and Zip)

8. ACTUAL PERFORMANCE

a. LOCATION
b. CAGE
c. COGNIZANT SECURITY OFFICE (Name, Address, and Zip)

9. GENERAL IDENTIFICATION OF THIS PROCUREMENT

Multi-Disciplinary Engineering and Technology Services (METS) for the formulation, design, development, non-flight fabrication, integration, testing, verification, and operations of space flight, and ground system hardware and software.

10. CONTRACTOR WILL REQUIRE ACCESS TO:	YES	NO	11. IN PERFORMING THIS CONTRACT, THE CONTRACTOR	YES	NO
a. COMMUNICATIONS SECURITY (COMSEC) INFORMATION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	a. HAVE ACCESS TO CLASSIFIED INFORMATION ONLY AT ANOTHER CONTRACTOR'S FACILITY OR A GOVERNMENT ACTIVITY	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. RESTRICTED DATA	<input type="checkbox"/>	<input checked="" type="checkbox"/>	b. RECEIVE CLASSIFIED DOCUMENTS ONLY	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. CRITICAL NUCLEAR WEAPON DESIGN INFORMATION	<input type="checkbox"/>	<input checked="" type="checkbox"/>	c. RECEIVE AND GENERATE CLASSIFIED MATERIAL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. FORMERLY RESTRICTED DATA	<input type="checkbox"/>	<input checked="" type="checkbox"/>	d. FABRICATE, MODIFY, OR STORE CLASSIFIED HARDWARE	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. INTELLIGENCE INFORMATION	<input type="checkbox"/>	<input type="checkbox"/>	e. PERFORM SERVICES ONLY	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(1) Sensitive Compartmented Information (SCI)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	f. HAVE ACCESS TO U.S. CLASSIFIED INFORMATION OUTSIDE THE U.S., PUERTO RICO, U.S. POSSESSIONS AND TRUST TERRITORIES	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(2) Non-SCI	<input type="checkbox"/>	<input checked="" type="checkbox"/>	g. BE AUTHORIZED TO USE THE SERVICES OF DEFENSE TECHNICAL INFORMATION CENTER (DTIC) OR OTHER SECONDARY DISTRIBUTION CENTER	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. SPECIAL ACCESS INFORMATION	<input type="checkbox"/>	<input checked="" type="checkbox"/>	h. REQUIRE A COMSEC ACCOUNT	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. NATO INFORMATION	<input type="checkbox"/>	<input checked="" type="checkbox"/>	i. HAVE TEMPEST REQUIREMENTS	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h. FOREIGN GOVERNMENT INFORMATION	<input type="checkbox"/>	<input checked="" type="checkbox"/>	j. HAVE OPERATIONS SECURITY (OPSEC) REQUIREMENTS	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LIMITED DISSEMINATION INFORMATION	<input type="checkbox"/>	<input checked="" type="checkbox"/>	k. BE AUTHORIZED TO USE THE DEFENSE COURIER SERVICE	<input type="checkbox"/>	<input checked="" type="checkbox"/>
FOR OFFICIAL USE ONLY INFORMATION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	l. OTHER (Specify)	<input type="checkbox"/>	<input type="checkbox"/>
k. OTHER (Specify)	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

PUBLIC RELEASE Any information (classified or unclassified) pertaining to this contract shall not be released for public dissemination except as provided by the Industrial Security Manual unless it has been approved for public release by appropriate U.S. Government authority. Proposed public releases shall be submitted for approval prior to release

Direct Through (Specify)

NASA/GODDARD SPACE FLIGHT CENTER 130/PUBLIC AFFAIRS OFFICE GREENBELT, MD 20771

CC To the Public Affairs Division, NASA Headquarters, Washington, D.C. 20546 for review.

13. SECURITY GUIDANCE. The security classification guidance needed for this classified effort is identified below. If any difficulty is encountered in applying this guidance or if any other contributing factor indicates a need for changes in this guidance, the contractor is authorized and encouraged to provide recommended changes; to challenge the guidance or the classification assigned to any information or material furnished or generated under this contract; and to submit any questions for interpretation of this guidance to the official identified below. Pending final decision, the information involved shall be handled and protected at the highest level of classification assigned or recommended. (Fill in as appropriate for the classified effort. Attach, or forward under separate correspondence, any documents/guides/extracts referenced herein. Add additional pages as needed to provide complete guidance.)

The contractor must have sufficient cleared employees assigned duties under this contract to be able to complete all classified work assignments up to and including SECRET.

The following documents shall be applicable and binding in the performance of this contract:

1. STS Classification Guide, dated 16 Jun 89, with Change #4 dated 31 Jan 91
2. Space Network Security Classification Guide, September 16, 1996
3. NASA Communication Security Classification Guide, dated 8 Jan 87
4. DoD 5220.22-M, National Industrial Security Program Operating Manual, January 1995
5. DoD 5220.22-A, COMSEC Annex to the National Industrial Security Program Operating Manual (Coordination Copy), June 1995
6. NCSC-1 - National Policy for Safeguarding and Control of Communications Security Material, 1/16/81
7. NPR 2810.1, Security of Information Technology, August 26, 1999
NPD 2810.1C, NASA Information Security Police, April 7, 2004
NPR 1620.1A, Security Procedural Requirements - w/Change 2 dated March 29, 2004
10. NPD 1600.2C, NASA Security Policy, April 28, 2004
11. GHB 1600.1A, GSFC Security Manual, November 30, 1990
12. OMB Circular A.130, Appendix III, Security of Federal Automated Information Resources
13. Computer Security Act of 1987, as amended

10.a. Access to COMSEC information will take place at the Goddard Space Flight Center.

14. ADDITIONAL SECURITY REQUIREMENTS. Requirements, in addition to ISM requirements, are established for this contract. (If Yes, identify the pertinent contractual clauses in the contract document itself, or provide an appropriate statement which identifies the additional requirements. Provide a copy of the requirements to the cognizant security office. Use Item 13 if additional space is needed.) Yes No

15. INSPECTIONS. Elements of this contract are outside the inspection responsibility of the cognizant security office. (If Yes, explain and identify specific areas or elements carved out and the activity responsible for inspections. Use Item 13 if additional space is needed.) Yes No

16. CERTIFICATION AND SIGNATURE. Security requirements stated herein are complete and adequate for safeguarding the classified information to be released or generated under this classified effort. All questions shall be referred to the official named below.

a. TYPED NAME OF CERTIFYING OFFICIAL Pamela A. Starling	b. TITLE Industrial Security Specialist	c. TELEPHONE (Include Area Code) 301-286-6865
--	--	--

d. ADDRESS (Include Zip Code) NASA Goddard Space Flight Center Code 240 Greenbelt, MD 20771	17. REQUIRED DISTRIBUTION	
	<input checked="" type="checkbox"/>	a. CONTRACTOR
e. SIGNATURE	<input checked="" type="checkbox"/>	b. SUBCONTRACTOR
	<input checked="" type="checkbox"/>	c. COGNIZANT SECURITY OFFICE FOR PRIME AND SUBCONTRACTOR
	<input type="checkbox"/>	d. U.S. ACTIVITY RESPONSIBLE FOR OVERSEAS SECURITY ADMINISTRATION
	<input checked="" type="checkbox"/>	e. ADMINISTRATIVE CONTRACTING OFFICER
	<input checked="" type="checkbox"/>	f. OTHERS AS NECESSARY NASA Headquarters, Code X

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List of Installation-Accountable Government Property (IAGP)

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>QUANTITY*</u>
1	Personal Computers, Monitors, and Printers	1 Lot Per Employee
2	Software Manuals & Diskettes	1 Lot Per Employee
3	Desks and Chairs	1 Lot Per Employee
4	Telephone	1 Per Employee
5	Filing Cabinets, Bookcases, and	1 Lot Per Employee
6	Misc. Office Items & Supplies	1 Lot Per Employee
7	Office Keys	1 Lot Per Employee
8	Engineering Tools and Equipment	As Necessary

*Items provided as available.

ATTACHMENT F

SAFETY AND HEALTH PLAN NNG05CA99C



SGT Team

*A Trusted GSFC Team Delivering Mission
Systems, Software, and Enabling Technologies*

SGT

Safety and Health Plan

for the

***Multi-disciplinary Engineering and
Technology Services (METS) Program***

July 9, 2004

This Safety and Health Plan for METS will be implemented as approved by the Government. I will take personal responsibility for its implementation, and the enforcement of safety and health program requirements. SGT will not invalidate the integrity of any METS safety systems without proper authorization. I will ensure that this Plan and the requirement for maintaining the integrity of METS safety systems are flowed down to all subcontractors/suppliers.

Andrew S. Endal
SGT METS Program Manager



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SECTION 4. SUBFACTOR D: SAFETY AND HEALTH PLAN

A Note From the President of SGT

We believe that our employees are our most important asset and their safety is our most important responsibility. It is our policy to provide a safe and healthy work environment for our employees whether they are in SGT, other company, or Government work spaces. Our responsibility is to ensure that safe practices and a safe work environment are established and maintained for the protection of our employees, their co-workers, government workers, other contractors, and guests. We take this responsibility most seriously as evidenced by SGT's superior safety record since our founding. As President of SGT, I give you my personal commitment that I will ensure that SGT continues to emphasize safety as a top priority and a value. The following Safety and Health Plan is SGT's blueprint for carrying out that commitment.

-Harold S. Stinger

INTRODUCTION

Compliance with Health and Safety Plan Requirements

SGT has developed this Safety and Health (S&H) Plan for the Multi-disciplinary Engineering and Technology Services (METS) contract in accordance with the requirements of NPR 8715.3, NASA Safety Manual, and in particular Appendix H of that document, which serves as the outline/structure of our S&H Plan. Our S&H Plan also addresses the METS RFP Clause H.7, Safety and Health - Additional Requirements; Clause I.5, Hazardous Material Identification and Material Safety Data; Clause I.6, Notice of Radioactive Materials; L.10, Safety and Health Plan; and Enclosure A, Safety and Health Supplemental Instructions. We have coordinated our plan development with the GSFC Safety and Environmental Division (Code 250) and with selected Facility Operations Managers (FOMs) across the Center. Exhibit 4-1 maps our approach to the RFP requirements, including elements identified by GSFC safety personnel as key to a compliant S&H Plan. SGT also serves as the Alternate FOM for Building 26 and is a member of the GSFC Contractor Safety Forum. Thus we are able to properly integrate our S&H activities into the Center's S&H program.

Exhibit 4-1. SGT S&H Plans Prepared In Accordance With NASA and GSFC Requirements

Table with 2 columns: S&H Plan Requirements and Where Addressed in SGT's Safety and Health Plan. Rows include: Description: Work to be performed on site, include hazards likely to be encountered; Contractor's on site safety point of contact; Contractor's statement of policy re: enforcement of S&H program requirements; Contractor's safety program objectives; Responsibilities of contractor's key personnel; Extent of safety meetings, surveys and inspection reports; Type(s) of personal protective equipment required; how and when it will be used and enforced; Safety training required for tasks performed, including certifications and/or recertifications where applicable; GSFC emergency procedures defined; Methods to comply with requirements for immediate report of accidents to CO; Statement that contractor will not invalidate the integrity of safety systems without proper authorization.



S&H Plan Requirements	Where Addressed in SGT's Safety and Health Plan
Procedures of emergency actions taken to secure dangerous conditions, protect personnel and work areas	4.3.1; Attachment 5
Procedures for securing accident site, remains secure until GSFC Safety and Environments Branch personnel arrive; remains secure until released by CO or S&E personnel	4.3.1; Attachment 5
Plan must reference the following documents: 1. NPR 8715.3 (Jan 2000) NASA Safety Manual 2. NPD 8621.1 – NASA Mishap Reporting & Investigation Policy 3. USDOL/OSHA Standards (29 CFR 1910 or 29 CFR 1926 as applicable) 4. Any state, county and/or local safety codes as applicable	Introduction Our document is structured to comply with S&H Plan requirements as specified in NPR 8715.3, Appendix H. 4.3.1 (NPG 8621.1)
Contractor's past performance with respect to NASA contracts	Introduction (OSHA Form 200s are referenced)
Contractor's past performance with respect to DOL/OSHA and/or State Plan compliance	Introduction
Contractor's Injury/illness rates	Introduction
H.7.S&H – Additional Requirements	4.1.5d) Quarterly Report 4.3.1 Mishap Investigation
L.5 Hazardous Material Identification	4.1.9, 4.1.10; Attachment 2
L.6 Notice of Radioactive Materials	4.4.1.1
L.10 Safety and Health Plan	Introduction (flowing down of requirements to our subcontractors). Our S&H plan is structured to comply with NPR 8715.3, Appendix H
Enclosure A Safety and Health Supplemental Instructions	4.4.4

Flowdown to Subcontractors

The requirements of this plan will be flowed down to our teammates whose subcontracts are expected to exceed \$500,000, namely, Northrop Grumman STS, Orbital Sciences TSD, and Raytheon TSC, all of whom are currently supporting GSEC in METS-related work areas, as well as in their off-site facilities. As part of its proposal process, SGT has verified that their safety policies comply with our S&H plan. Any post-award updates to this S&H Plan will be flowed to Team member subcontractors upon update.

SGT Team Safety Record

SGT has an excellent safety record. Our OSHA reporting requirements are met each year, including submission of the OSHA Form 200 summary report. These reports are provided for SGT and our METS teammates as attachments to Volume IV, Past Performance.

The industry average for SIC 871 is 1.2%. This incidence rate represents the number of illnesses and injuries per 100 full-time employees.

SGT's safety record has been achieved in support of customers at numerous locations, for example, GSFC, KSC, the GISS facility in New York, JPL, the White Sands Complex, the Wallops Flight Facility, and the EROS Data Center in Sioux Falls, SD. We have provided engineering I&T, radiation effects analysis, satellite ground station antenna services, logistics, maintenance, and facility operations support, complying with all safety/environmental requirements. We will bring this demonstrated commitment to safety to METS.

Scope of Work

The METS contract provides engineering and related services to the following divisions within the Applied Engineering and Technology Directorate (AETD) at GSFC: the Mission Engineering and Systems Analysis Division, the Information Systems Division, the Instrument Systems and Technology Division, and the Electrical Engineering Division, as well as related organizations, as required, for the formulation, design, development, non-flight fabrication, integration, testing, verification, and operations of space flight and ground system hardware and software, including



development and validation of new technologies to enable future space and science missions. The emphasis in engineering services is in the areas of systems engineering, software engineering, information technology, and Guidance, Navigation, and Control (GN&C). The contractor provides on/off-site multidisciplinary engineering services. These services include the personnel, facilities, and materials (unless otherwise provided by the Government) to accomplish the tasks.

Services are provided in all aspects of mission and instrument development and implementation for components, subsystems, systems, science instruments, observatories, launch, ground system, spacecraft, and suborbital craft (e.g., aircraft, sounding rockets, UAVs, balloons), including attached shuttle or Space Station, payloads, free-flying spacecraft, and suborbital craft payloads, as well as ground support equipment, simulators, non-flight models, and prototypes; candidate, feasibility, and systems definition studies; project management; systems engineering; analysis; preliminary design; detailed design; non-flight fabrication; assembly; integration; test and verification; test instrumentation; data systems management; launch and post-launch operations; research and technology unique to system development; documentation; maintenance; sustaining engineering; configuration management; mission assurance; architectural trades; performance, cost, and risk assessment; and systems safety.

An off-site facility in the vicinity of GSFC will be maintained by SGT for contract management and for housing off-site personnel.

Applicable Documents

SGT will comply with the applicable S&H requirements specified in the following documents:

- All safety related METS contract clauses. The RFP clauses are as follows: H.7, I.5, I.b, L.10, L.14, and Enclosure A.
- Public Law 91-596, Occupational Safety and Health Act of 1970.
- Title 29 Code of Federal Regulations, Part 1904.
- Title 29 Code of Federal Regulations, Part 1910.
- Title 29 Code of Federal Regulations, Part 1910.1200 Hazard Communication.
- Title 29 Code of Federal Regulations, Part 1926.
- Title 29 Code of Federal Regulations, Part 1960.
- NPD 8621.1, NASA Mishap Reporting.
- NPD 8710.1, Emergency Preparedness Program.
- NPD 8710.2, NASA Safety and Health Program Policy.
- NPG 5100.4, NASA Federal Acquisition Regulations Supplement.
- NPG 8715.1, NASA Safety and Health Handbook.
- NPR 8715.3, NASA Safety Manual.
- GHB 1040.1E, GSFC Emergency Preparedness Manual.
- USDOL OSHA Standards (as applicable).
- Any applicable state, county, and/or local safety codes.



4.1 MANAGEMENT LEADERSHIP AND EMPLOYEE PARTICIPATION

4.1.1 POLICY. As presented at the beginning of our plan in the words of SGT's President, "We believe that our employees are our most important asset and their safety is our most important responsibility. It is our policy to provide a safe and healthy work environment for our employees whether they are in SGT, other company, or Government work spaces. Our responsibility is to ensure that safe practices and a safe work environment are established and maintained for the protection of our employees, their co-workers, Government workers, other contractors, and guests."

Our policy also includes the commitment to ensure that SGT continues to emphasize safety as a top priority and value. GSFC's Safety Policy is found on the GSFC Safety Homepage, and begins as follows:

"GSFC's most important core value is safety – safety of the public, astronauts and pilots, safety of our civil servant and contractor personnel, and safety of our high value ground and space equipment and property. It is GSFC's policy to provide a safe and healthy environment for all civil servants, contractor employees, and visitors."

We believe our policy aligns well with that of GSFC, including our commitment to open communication with our employees, especially from their perspective of reporting conditions that they think are unsafe, in an atmosphere free from fear of recrimination for having made such a report. The CAIB report states plainly that the physical cause of the loss of Columbia and its crew (a breach in the Thermal Protection System on the leading edge of the left wing) was not the only reason for this tragedy: "...the NASA organizational culture had as much to do with this accident as the foam." (CAIB, p97). These cultural factors are complex and include the critical mischaracterization of the Shuttle as an operational system. But these factors also show a "silent safety program," a safety program based on success rather than rigorous, independent Safety and Mission Assurance involvement, and "organizational barriers which prevented effective communication of critical safety information and stifled professional differences of opinion." (CAIB, p177). At SGT we are committed to an open culture where safety concerns are voiced across the organization and not only heard, but when appropriate, rewarded (refer to Section 4.2.3).

4.1.2 GOALS AND OBJECTIVES. Specific safety and health goals and objectives include:

- Communicate S&H policy to all employees including our teammates and any lower level sub-contractors to ensure a full understanding of safety requirements.
- An accident-free workplace with zero lost days.
- An effective ongoing training program, including first aid, Cardiopulmonary Resuscitation (CPR), fire prevention, use of fire extinguishers, chemical spill/contamination response, and accident reporting procedures.
- Full compliance with all medical examination requirements as specified in Enclosure A to the RFP.
- Efficient and compliant workplace/workforce safety & health reporting and inventory management, and trend analysis.
- Demonstrated management safety leadership and authority.
- Regular communication with Building FOMs.



- Conscientious performance of assigned building safety duties, for example, Area Warden responsibilities.
- Effective, appropriate inspections.
- Clearly established responsibility for safety and health at all levels in the METS SGT Team organization.

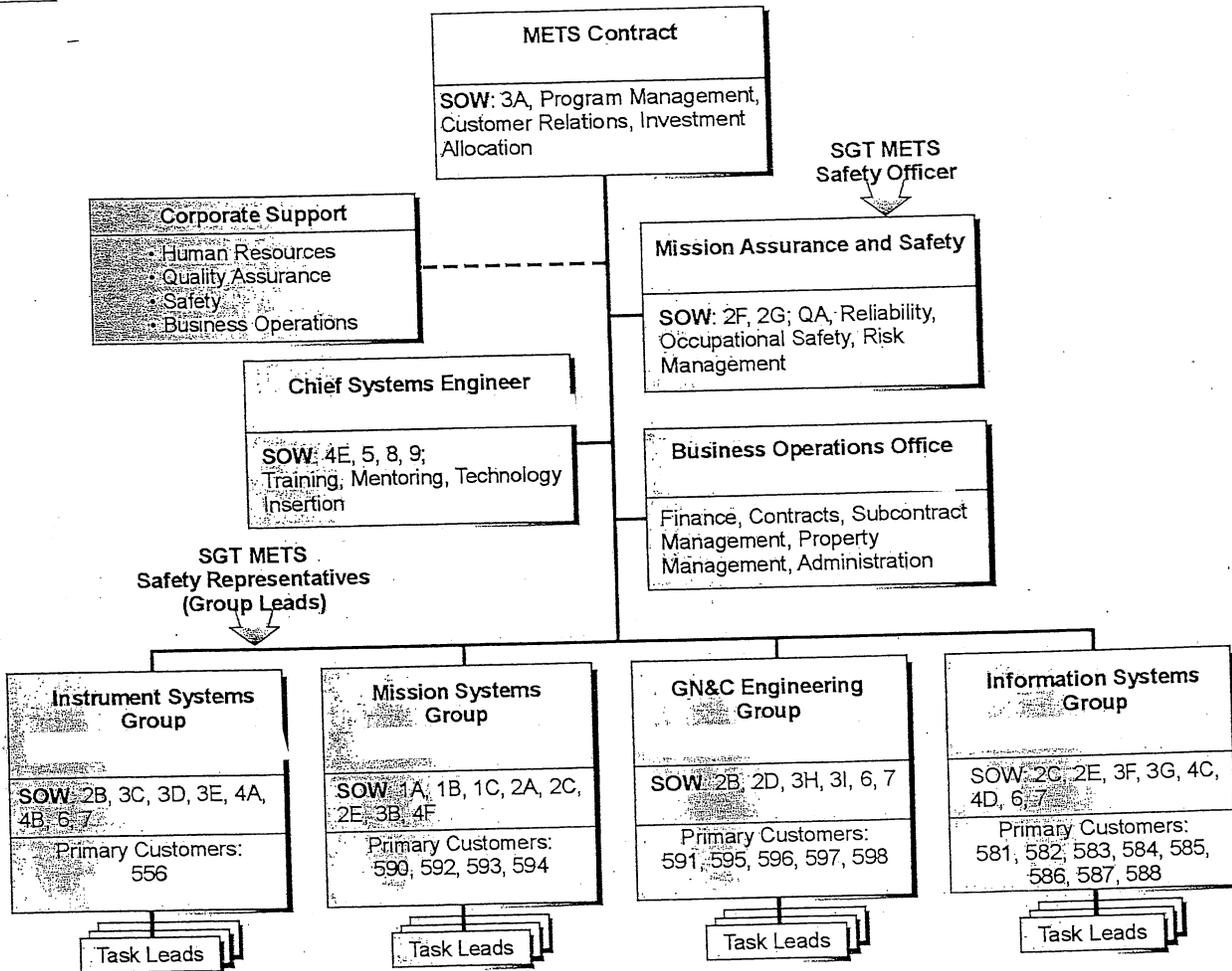
The SGT Team will use OSHA's Program Evaluation Profile (PEP) survey (see Attachment 1) as a means to evaluate our safety program. The PEP rates the program in the following key areas: management leadership and employee participation, workplace analysis, accident and record analysis, hazard prevention and control, emergency response, and safety and health training. SGT will strive to attain and maintain Level 5. A specific milestone schedule will be developed after the initial PEP survey has been completed and assessed, within 3 months after contract start.

4.1.3 MANAGEMENT LEADERSHIP. At the corporate level, senior SGT management has established the SGT Safety Committee to oversee safety programs and bring consistency across all SGT programs/contracts. This committee is appointed by the company President and is chaired by the SGT Safety Officer. Permanent members include SGT's ISO Quality Representative and senior managers in Human Resources and Contracts. Annual rotating membership in the committee is held by senior members of technical management and employee representatives. All SGT Program Safety Officers attend the quarterly meeting of the SGT Safety Committee. The Safety Committee's primary responsibility is to review and make recommendations to SGT's President on any changes to SGT's S&H policies, procedures, plans, or standards, including on-going monitoring of OSHA requirements for updates/new requirements. The committee also reviews the results of all safety audits and mishap reports, develops lessons learned, and makes recommendations to correct any deficiencies in SGT's policies and plans.

At the program-specific level, effective implementation of the SGT Team's S&H Plan starts with the leadership of the METS Program Manager (PM) to motivate and hold accountable his entire staff for all aspects of the S&H Plan. The Mission Assurance and Safety (MA&S) Officer is the designated Safety Officer for the METS Program; the Group Leads are the designated Safety Representatives for their respective areas. Exhibit 4-2 shows the placement of the Safety Officer and Representatives within the overall program organization/structure. The PM will ensure that all METS safety requirements are enforced with subcontractors and suppliers. A signed statement of the PM's personal commitment to the safety program, the integrity of safety systems, and flowing down the safety requirements can be found on the signature page of this document.

The PM will ensure:

- Total compliance with the S&H Plan by all employees of the SGT Team in every facility location.
- The METS Safety Officer communicates with him on: (1) the status of any risks or hazards that are identified by the Safety Representatives or the FOMs; (2) status of ongoing root cause analysis/corrective action plans; and (3) documentation status in response to S&H audits and inspections.
- The CO and COTR are kept informed on status of all S&H events/actions.



4.2 R4

Exhibit 4-2. SGT Team METS Organization

4.1.4 SGT TEAM METS EMPLOYEE INVOLVEMENT/RESPONSIBILITIES

METS employees will:

- Read, understand, and comply with the METS S&H Plan.
- Satisfy all applicable S&H training requirements.
- Comply with NASA's safety, health, and environmental standards.
- Comply with the safety requirements listed in any applicable Material Safety Data Handling Sheets (MSDS).
- Maintain an understanding of current safety plans and procedures affecting their work areas, including relevant evacuation plans.
- Wear protective equipment when required.
- Seek and obtain training in the safe operation of specialized equipment.
- Keep immediate work areas neat and orderly.
- Assist Code 250 personnel during inspections, surveys, and investigations.



- Notify SGT Safety Representatives and appropriate facilities staff of any new equipment that may require SGT action for reporting.
- Report any suspected safety or health hazards to the appropriate building safety personnel.
- Obtain necessary emergency medical care.
- Promptly report occupational injuries and illnesses as directed by area procedures.

4.1.5 ASSIGNMENT OF RESPONSIBILITY

a. Safety Representatives/METS Group Leads. Safety Representatives will:

- Conduct periodic walk through inspections of work areas to ensure compliance to the METS S&H Plan and to identify and take corrective action to eliminate any potential hazard or safety risk; coordinate any corrective action with the Safety Officer and the FOM.
- Work with the Safety Officer and the FOM on any planned adjustments in the work place layout or equipment changes and any planned moves; conduct before and after inspections to ensure no hazards have been created and report results to the METS Safety Officer and the FOM.
- Work with the FOM to support the Center's fire safety program and serve as evacuation Point of Contact (POC) as assigned.

b. Company Physician. SGT does not employ a company physician. Our SGT Human Resources Manager, Ms. Linda Baumgart, is the METS point of contact with the GSFC Medical Unit. Her contact information follows:

SGT, Inc.
7701 Greenbelt Rd.
Greenbelt, MD 20770
(301) 486-3134

SGT will communicate this medical data point of contact to the GSFC Medical Unit upon award of contract. We will promptly communicate to GSFC any changes to this contact information.

c. Building Fire Wardens. We will communicate with our Building FOMs upon contract award so that during transition we can establish the requirement for SGT METS personnel to serve as Building Fire Wardens.

d. Designated Safety Officer/SGT METS Safety Officer. The MA&S Officer is the designated Safety Officer for METS. His primary duties follow:

- Ensure all personnel are trained and understand all of the METS S&H Plan requirements.
- Serve as SGT's senior safety point of contact, including designated interface with Code 250.
- Implement and maintain the S&H Plan for the program.
- Support and audit the Safety Representatives' efforts for employee training, FOM interactions, and timely inspections to identify risks, hazards, and potentials for accidents; analyze all findings and implement appropriate corrective action.
- Coordinate with the SGT Human Resources department to maintain S&H training records.
- Administer the awards program to promote S&H.
- Coordinate with the SGT Business Operations department to flow down S&H requirements into our teammates' subcontracts.



- Ensure the PM and COTR/CO are informed and current on all S&H status.
 - In accordance with Clause H.7, generate quarterly reports specifying incidents, disabling injuries, lost work days incident rate, days lost, property damage cost, man-hours worked/month, and total employees. This report will be developed using the template at <http://safety1st.gsfc.nasa.gov>.
 - Conduct investigations of all work-related incidents, accidents, and close calls; determine their causes; and provide the CO with an appropriate report.
 - Take appropriate corrective action in response to any non-compliance identified by the CO.
- e. On-site Point of Contact. Our lead SGT interface to Code 596 is our designated on-site safety point of contact.

4.1.6 PROVISION OF AUTHORITY. This S&H plan was developed in accordance with guidelines provided by Code 250, the NASA Safety Manual NPR 8715.3, and relevant FAR and NFS clauses. SGT will comply with all applicable federal, state, county, and local safety ordinances. At our present corporate office in Greenbelt, our Facility Manager (FM) interfaces with the Building Engineer on a regular basis to ensure we are compliant with building safety regulations. Our FM conducts regular safety inspections throughout our office spaces and follows-up for corrective action as necessary. The FM reports to the SGT Safety Committee on status of corrective actions. Our SGT Safety Officer is responsible for periodic review of federal, state, and local safety ordinances.

Our GSFC on-site Safety Representatives will interface with Building FOMs to review requirements of safety ordinances and communicate with our METS Safety Officer. We will monitor web site announcements (such as OSHA and the Goddard Safety Home Page) and updates to applicable regulations and revise our S&H Plan as appropriate.

4.1.7 ACCOUNTABILITY. SGT's President has delegated accountability for all matters related to the safety of SGT workers whether at SGT, contractor, or Government facilities to the SGT Safety Officer and to our Program/Project Directors/Managers. SGT's supervisors and employees are accountable for ensuring that they understand and comply with SGT's safety policy and procedures.

4.1.8 PROGRAM EVALUATION. In addition to inspections, reports, and coordination with GSFC FOMs and Code 250, SGT's Safety Officer will use the PEP survey to evaluate our safety program. We will conduct the program evaluation annually and report the results to GSFC. The Safety Officer and PM will develop any necessary corrective action plans. PEP results will also be submitted to the SGT corporate Safety Committee who monitors safety performance across all SGT programs and takes appropriate corporate action in response to any negative findings or trend analyses. The SGT President will receive a written report from the SGT Safety Committee of any negative PEP findings or mishap reports.

4.1.9 GOVERNMENT INSIGHT. As required in the RFP at Clause H.7, SGT will provide a Quarterly Health and Safety Report using the template identified in the RFP. We will also comply with the requirements at H.7(b) regarding immediate notification and prompt reporting (NFS clause 1852.223-70) to Code 250 and the Contracting Officer. SGT understands that this notification is also required for any unsafe or environmentally hazardous condition associated with Government-owned property that is provided or made available for the METS contract. We will communicate these requirements across our contract's staff, including subcontractors. During transition we will communicate with the CO and Code 250 to specify reporting requirements and



other data to which the Government requires access. We will facilitate electronic access if requested by the Government.

We acknowledge as standing requests a roster of terminated employees, the required information for which being specified in Appendix H, NPR 8715.3, paragraph 1.9a.

Under Maryland law, employees must have access to information about potentially hazardous substances in their work place. Major elements of our procedures to comply with this requirement include the following:

- Maintaining a site notebook with all MSDSs available for employees at all times.
- Ensuring that vendors provide an MSDS with product delivery.
- Giving new employees a safety orientation that includes their right to know about materials they will be handling.
- Supervisors demonstrating by example the proper use of materials that may be hazardous.
- Supervisors checking the proper use of protective devices.
- Properly labeling all materials by marking precautions clearly on containers. (If a substance or material is removed from its original container, the new container must be marked with the name of the item and precautions.)
- Sending a copy of each MSDS upon receipt of the material for use on NASA property to Code 250, along with the name, address, and telephone extension of the contractor representative to be contacted for questions or other information. Another copy will be available for on-site use.

SGT will maintain inventory of all hazardous materials it has located on Government property and which are within the scope of Title 29 CFR 1910.1200—Hazard Communication and Federal Standard 313—Material Safety Data, Transportation Data, and Disposal Data for Hazardous Materials Furnished to Government Activities, as revised. This listing will provide:

- The identity of the material.
- The location of the material by building and room.
- The maximum quantity used, disposed of, or otherwise released during the year for each material.

We will submit a report annually as requested by Code 250.

4.1.10 GOVERNMENT ACCESS TO SAFETY AND HEALTH PROGRAM DOCUMENTATION. SGT will make available all safety documentation deemed by the Government as requiring scrutiny. Specifically, we will maintain the MSDSs and Hazardous Materials Inventory as described below. We will also comply with the requirements of clause 52.223-3 (included as Attachment 2). This clause includes requirements for hazardous material identification, maintenance of MSDSs, periodic updates of the hazardous materials list, Government rights to data, notification to personnel of hazards to which they might be exposed, and shipping container identification.

4.1.11 REVIEW OF SAFETY REQUIREMENTS. SGT will participate in the review and modification of safety requirements that may be implemented at the direction of the GSFC COTR in accordance with established NASA directives and procedures.

4.1.12 PROCUREMENT. All procurements will be reviewed for safety and environmental considerations, to ensure that specifications contain appropriate criteria and instructions. SGT



will comply with governing FAR and NFS clauses and coordinate with Code 250 to remain up-to-date on GSFC-specific new requirements.

4.2 WORKPLACE ANALYSIS

4.2.1 HAZARD IDENTIFICATION. SGT understands the complexity of lab/work space environments in which METS support will be carried out. Exhibit 4-3 summarizes selected, key METS facilities (or potential use/support facilities) at GSFC and highlights related safety issues and training.

During transition we will verify safety requirements with the appropriate FOMs and Lab Managers. Under existing SGT contracts at GSFC (approximately 10 contract vehicles), as well as our teammates' on-site presence supporting MEDS (predecessor contract to METS), the SGT Team has in-depth experience with many GSFC labs and other work environments that demand special attention to safety regulations/procedures. This experience gives us substantial insight that will aid our worksite analysis during transition.

Exhibit 4-3. Facility Assessment for METS On-Site Performance

Bldg	Code	Facility	Activities	Safety Concerns/Training
7	540	SCA	Integration and test clean room.	ESD; Clean Room ops; Cleaning solutions; Laser safety; Overhead Crane Operations.
Area 300	549	Magnetic Test Facility	TAM calibration, SC residual magnetic moment, ACS functional testing, TAM/MTB interaction.	Semi-restricted access, MSDS safety.
7	550	Instrument Development Laboratory (Assy & Test Areas)	Wavefront testing, instrument assembly and test, minor machining, cryogenics.	ESD; Lab equipment ops; Laser safety; Eye-wear; High Voltage Safety; MSDS Safety; Solvent usage; Machine Shop Safety.
7	551	Optical Integration Facility	Optical assembly, overhead crane operations, optical testing.	ESD; Cleaning solutions; 10K Clean room ops, crane operator certification; Laser eye safety; contamination risk/training.
5	540	Machine Shop	Metal, plastic, and composite material machining and assembly, plating, and cratings.	Hazardous dust, chaff, high-speed cutting machines, overhead crane, MSDS safety ear and eye hazards.
5	551	Diffraction Grating and Evaluation Facility (DGEF)	Air and Vacuum testing optics & detectors; optical coatings application, low light testing, scattered light, spectral efficiency, imaging performance.	ESD; Lab equipment ops; Laser safety; Eye-wear; Overhead Crane Operations; High vacuum & High Voltage Safety; MSDS Safety; Solvent usage.
7	551	Calibration, Integration & Alignment (CIA) Facility	Class 10K clean room, instrument & spacecraft alignment & testing, crane, high bay, low light testing, laser safe.	ESD; 10K Clean room ops; Lab equipment ops; Laser safety; Eyewear; Overhead Crane Operations; High Voltage Safety; MSDS Safety; Solvent usage; contamination risk/training.
7	551	Vertical Flow Facility	Class 100 clean room, optical subsystem/instrument integration & alignment.	ESD; 100 Clean room ops; Lab equipment ops; Laser safety; Eyewear; MSDS Safety; Solvent usage.
7	551	Horizontal Flow Facility	Class 10K clean room, collimated laser, optical assembly & alignment.	ESD; 10K Clean room ops; Lab equipment ops; Laser safety; MSDS Safety; Solvent usage.
7	552	Cryogenic Research Integration Facility (CRIF)	Cryogenic integration & test.	Handling cryogenic fluids; Crane Operator Cert.; Dewar operation.
400	552	Cryogenic Test Bed (CTB); Propulsion Test Site	Cryocooler operation; T/V chambers; Propellant system assembly via welding, thermal cycling testing.	Cryogenics Safety; Thermal Vacuum chamber ops; Hypergolics; ESD.
11/30	553	Detector Development Lab	Class 10 clean room, high-energy ion implanter, optical lithography, wet & plasma dry etching, thermal processing, ECR chemical vapor deposition, material characterization.	ESD; 10 Clean Room ops; Eyewear; Ventilation; High Vacuum Safety; Hazardous Materials; Lab equipment ops; MSDS Safety.
20	553	Detector Characterization Lab	Detector & Focal plane characterization; calibration, performance measurements, cryocoolers.	ESD; 10K Clean room ops; Lab equipment ops; Laser safety; Eyewear; MSDS Safety; Solvent usage; Cryogenics Safety; Dewar operation.
22	562	Advanced Technology Lab	Hybrid microelectronics build (wire bonding & die attach machines).	ESD; 10K Clean Room ops.



Bldg	Code	Facility	Activities	Safety Concerns/Training
22	562	Nanotechnology Lab	Nanotube technology investigations w TIG welder, Raman Spectrometer.	Lab equipment ops; Radiation Safety; Eye-wear; MSDS Safety.
23	562	PWB Assembly Lab	Soldering, assembly, rework of printed wiring boards.	ESD; Cleaning fluids; Conformal coating materials usage; MSDS Safety; eye protection.
16W	562	PWB Assembly Lab	Soldering, assembly, rework of printed wiring boards.	ESD; Cleaning fluids; Conformal coating materials usage; MSDS Safety.
20	563	Solar Illumination Test facility	Flash Illumination test solar arrays.	ESD; High voltage; Eye protection.
7/10/15/29	568	Environmental Test Facility (incl. SSDIF & GEMAC)	Thermal vacuum, EMI/EMC, Centrifuge, static load, modal survey, acoustic, vibration testing, I&T, Crane operations, Forklift.	ESD; 10K Clean room ops; Equipment Ops; MSDS Safety; Solvent usage; Overhead Crane Operations; High Vacuum Safety; Electrical Radiation Safety Proc.
11	596	Formation Flying Testbed	E-T-E mission simulations; GPS receiver testing.	ESD; lab equipment ops; MSDS safety.
11	596	Gyro Test Facility	Calibration and performance testing rate table.	Semi-restricted access, MSDS safety.
11	596	GPS Test Facility	GPS receiver testing; cesium timing standard.	ESD; lab equipment ops; flight standards, as required.
11	596	Star Tracker Test Facility	Calibration, functional testing.	Laser safety, restricted access, MSDS safety, and solvent usage.
11	596	RWA Development Lab	Assembly, balancing, vibration testing on Kistler table, life testing.	ESD, restricted access, MSDS safety, and solvent usage.

Hazardous conditions/operations within SGT's worksite (on and off site) will be identified for the duration of the contract. The information collection processes will include surveys, analyses, and inspections of the worksite. Hazards on GSFC property will be subject to the review and concurrence of Code 250. We will conduct an inventory of hazards associated with the work to be performed on this contract. This inventory of hazards will address the work specified in this contract as well as operations and work environments that are performed in the vicinity or in proximity to contract operations. The results will be reported to the Government in a manner suitable for inclusion in facilities baseline documentation as a permanent record of the facility. Results will also be provided to the SGT Safety Committee for lessons learned across all programs.

In an effort to minimize the exposure of hazardous materials to employees in adjacent areas, we will substitute non-hazardous or less hazardous materials whenever possible. We will also apply the latest EPA guidelines (available from Code 250) to materials purchased under the contract.

a. Comprehensive Survey. In addition to ongoing, daily attention to safety by our staff, during METS contract phase-in and then annually, the SGT Safety Officer and Representatives will conduct a formal comprehensive assessment of our assigned work spaces including facilities, equipment, processes, and materials (including waste) using the inspection guide provided as Attachment 3. SGT will coordinate the surveys with Building FOMs and submit our findings to Code 250 for their review and concurrence.

b. Change Analysis. SGT will analyze modifications in facilities, equipment, processes, and materials (including waste), and related procedures for operations and maintenance. Change analyses periodically will be driven by new or modified regulatory and/or GSFC requirements.

c. Hazard Analysis. Based on the findings of our hazard identification activities, SGT will analyze facilities, systems/subsystems, operations, processes, materials (including waste), and specific tasks. SGT will list each hazardous operation and/or unique hazard to be performed, and other key operations required or planned in the performance of the contract. GSFC and SGT will jointly decide which operations are to be considered hazardous, with GSFC as the final authority. Before hazardous operations commence, SGT will submit for GSFC concurrence: (1) a list of required procedures for all hazardous operations and identification of the written procedures or



responsibility for their development; and/or (2) qualification standards or required certifications for personnel involved in hazardous operations.

4.2.2 INSPECTIONS. In coordination with our Building FOMs, SGT will develop requirements and procedures for control of and regularly scheduled inspections for fire and explosion hazards. The results of inspections conducted on GSFC or other Government property will be documented in safety program evaluations or the quarterly Accident/Incident Summary Reports. Inspections will identify the following:

- Discrepancies between observed conditions and current requirements.
- New (not previously identified) or modified hazards.
- Root cause/corrective action process.

4.2.3 EMPLOYEE REPORTS OF HAZARDS. One of the most important elements of employee reporting of hazardous conditions or close calls is the assurance that SGT management values such reporting. Every employee is encouraged to report immediately any unsafe conditions, as well as actual mishaps or close calls. As stated in the GSFC Safety Pocket Guide, "Reprisal or disciplinary action against an employee who initiates a safety concern shall not be tolerated." SGT will not only encourage reporting, but where appropriate, provide an award to employees whose alert observation and timely reporting contribute to increasing the safety of our work environments. Safety and Health Awards, cash and a certificate, are also presented for any significant contribution to our safety program. SGT will reinforce the role of the Ombuds Program in safety and hazard reporting. The NASA Administrator has described this program as follows:

"NASA implemented the agency-wide Ombuds Program to provide an additional, confidential channel of person-to-person communication to raise concerns about safety, health, organizational performance and mission success. NASA Ombuds are empowered to listen to and act on employee concerns related to safety, organizational performance, and mission success. The Ombuds serve as a safety valve when employees feel regular channels for raising issues and concerns are not effectively working." The GSFC Ombuds is Judy Bruner (301-286-2556).

Other avenues for reporting if normal channels are considered ineffective are: NASA HQ senior safety and health officials; the NASA Safety Reporting System (<http://www.hq.nasa.gov/nsrs>); the Office of Federal Agency Safety and Health Programs/OSHA; and the NASA office of Inspector General.

4.3 MISHAP INVESTIGATION AND RECORD ANALYSIS

4.3.1 MISHAP INVESTIGATION. Any employee having knowledge of a mishap (including fire and hazardous materials releases) or near miss should first call 911 (Greenbelt and KSC) or 1333 (Wallops) and then report it immediately to an SGT METS Safety Representative, METS Safety Officer, or METS PM. The METS Safety Representative, Officer or PM will report the accident/incident immediately in accordance with the instructions at Clause H.7 of the RFP, as follows:

"The immediate notification and prompt reporting required by paragraph (d) of NFS clause 1852.223-70 shall be to the GSFC Safety and Environmental Division (Code 250), 301-286-2281 and to the Contracting Officer. This should be a verbal notification and confirmed by fax or email. This notification is also required for any unsafe or environmentally hazardous condition associated with Government-



owned property that is provided or made available for performance of the contract.”

If any METS Safety Representative, the Safety Officer or the PM is not available, the employee will call 911 (or 1333, as appropriate), and then report to the SGT HR Manager. CO notification will follow. SGT will report using Form 1627 (see Attachment 4). All mishaps will be investigated for root cause and corrective action determination (NPG 8621.1 provides procedures for conducting investigations). A report will be submitted to the CO and a copy to Code 250. SGT will coordinate with GSFC to implement and monitor corrective actions.

The METS Safety Officer shall:

- Categorize and identify the severity of the problem/mishap.
- Conduct an investigation in a timely and complete manner.
- Make a report and recommendations to the SGT Safety Committee.
- Ensure that the proper corrective procedure is undertaken.
- Comply with all GSFC and OSHA reporting requirements.
- Inform SGT HR of the situation in the event of an injury for Workers Compensation reporting purposes.

SGT personnel will comply with specific emergency action procedures documented in the Facility Emergency Action Plan and building evaluation plans. These procedures include emergency actions for securing dangerous conditions and accident sites until released by the CO and Code 250.

4.3.2 TREND ANALYSIS. The SGT METS Safety Officer with support from the Safety Representatives will perform monthly trend analyses of occupational injuries and illnesses; facilities, systems, and equipment performance; and maintenance findings. In conjunction with our FOMs and Code 250, we will identify causes of workplace-related illness and performance issues, and develop approaches to resolve them. For each element on and off GSFC property that performs work on this contract, SGT will deliver to the Government (under separate cover letter) a copy of our annual summary of occupational injuries and illnesses (or equivalent) as described in Title 29 Code of Federal Regulations, Subpart 1904.5. If we are exempt by regulation from maintaining and publishing such logs, equivalent data will be provided. Data will be compiled and reported by calendar year and provided to the Government within 45 days after the end of the year to be reported (not later than February 15 of the year following).

4.4 HAZARD PREVENTION AND CONTROL

4.4.1 APPROPRIATE CONTROLS. SGT will coordinate with Code 250 to establish a hazard reduction precedence sequence; an approach to identifying and accepting residual risk; and an overall approach to selecting and implementing controls.

4.4.1.1 Hazardous Operations. SGT’s overall approach to operations involving the use of hazardous materials and situations employs the following major actions. SGT will:

- Review the hazards (hazard analysis) for our operations.
- Ensure all personnel involved in these operations have received the appropriate hazards communication (haz-com) training and other required safety training.
- Ensure all personnel are familiar with and utilize the required Personal Protective Equipment (PPE).



- Ensure all personnel are familiar with emergency procedures regarding their operations.
- Ensure all equipment used in these operations is in proper working order.

SGT will routinely examine and analyze hazards associated with individual jobs, operations, and processes. We will coordinate with safety, health, and environmental services, and emergency authorities at GSFC and other off-site facilities as required. We will establish methods for notification of personnel when hazardous operations are to be performed in their facilities or when hazardous conditions are found to exist during the course of the contract. GSFC policy will serve as a guide for defining, classifying, and prioritizing hazardous operations. In coordination with our FOMs and Code 250, SGT will develop and maintain a list of hazardous operations to be performed during the life of this contract. The list of hazardous operations will be provided to the CO as part of the S&H Plan for review and approval. Before hazardous operations commence, SGT will provide a schedule to identify and/or develop written hazardous operations procedures with particular emphasis on identifying the job safety steps required. SGT will adhere to GSFC procedures for operations involving potential asbestos exposures. SGT will coordinate operations involving exposures to toxic or unhealthful materials for evaluation by Code 250, prior to work. As appropriate, and in coordination with GSFC, we will develop procedures to manage hazardous waste from point of generation through disposal. With guidance from Code 250, we will clearly identify divisions of responsibility between contractor and GSFC for hazardous waste generated throughout the life of the contract.

As appropriate, SGT will develop methods for identifying new or modified emissions/discharges and coordinating results with the GSFC Environmental Team. These procedures will strive to minimize or eliminate environmental pollution. We will address management of hazardous materials, substitution of non-hazardous or less hazardous materials for hazardous materials, proper segregation of hazardous wastes from non-hazardous wastes, and other methods described by GSFC. Emphasis will be placed on providing for sufficient lead time for processing permits through appropriate State agency and/or the EPA.

As specified in Clause I.6, Notice of Radioactive Materials, SGT will notify the Contracting Officer or designee, in writing 30 days prior to the delivery of, or prior to the completion of any servicing required by the METS contract, of items containing either (1) radioactive material requiring specific licensing under the regulations issued pursuant to the Atomic Energy Act of 1954, as amended ..., in effect on the date of the METS contract, or (2) other radioactive material not requiring specific licensing in which the specific activity is greater than 0.002 microcuries per gram or the activity per item equals or exceeds 0.01 microcuries.

All items, parts, or subassemblies which contain radioactive materials in which the specific activity is greater than 0.002 microcuries per gram or activity per item equals or exceeds 0.01 microcuries, and all containers in which such items, parts, or subassemblies are delivered to the Government will be clearly marked and labeled as required by the latest revision of MIL-STD 129 in effect on the date of the METS contract.

4.4.1.2 Written Procedures. As required and in coordination with GSFC, SGT will develop written procedures for all hazardous operations, including required safety equipment, testing, maintenance, repairs, and handling of hazardous materials and hazardous waste. Procedures will be developed in a format suitable for use as safety documentation and be readily available to personnel as required to correctly perform their duties.



4.4.1.3 Protective Equipment. SGT has begun its analysis of the worksite environment (Exhibit 4-3) and the protective equipment that would be appropriate to a given activity. Based on completion of this analysis during transition, SGT will develop or reference procedures for obtaining, inspecting, and maintaining protective equipment as required. A procedure will be developed for keeping records of such inspections and maintenance activities.

4.4.1.4 Hazardous Operations Permits. In coordination with Code 250, SGT will identify operations or tasks where hazardous operations permits will be required as specified in GSFC's local requirements. These operations include: operations involving potential asbestos exposures; operations involving exposures to toxic or unhealthful materials; operations involving hazardous waste; and, operations involving new or modified emissions/discharges to the environment.

4.4.2 FACILITIES BASELINE DOCUMENTATION. When tasked, SGT will provide any facilities baseline documentation (including safety engineering), as provided in the Government approved METS SGT Health and Safety Plan.

4.4.3 PREVENTIVE MAINTENANCE. For Government-owned property, SGT will coordinate with GSFC facilities operations staff to support established preventive maintenance requirements. Contractor-owned equipment will be maintained in accordance with manufacturer/vendor specifications and industry best practice. We will promote awareness when preventive maintenance reveals design or operational concerns in facilities and equipment. SGT, on its PAAC contract, uses its PAAC website to alert employees to safety concerns via bulletins. We will use appropriate distribution techniques to "get out the safety word" on METS via our project management information system, SyNGIN (the Next Generation Integrated Network).

4.4.4 MEDICAL PROGRAM. All METS staff have access to GSFC emergency medical services and for some conditions, we may qualify for treatment at the Health Unit. SGT, in coordination with our COTR, will manage employee training on-site for CPR, first aid, and emergency response. We will certify at least one individual per shift and building in these medical-related areas.

SGT's employees are encouraged to seek medical attention when workplace injuries occur. SGT and our Teammates offer a full medical insurance package that covers all foreseeable emergency and non-emergency health care requirements. Employees with workplace injuries are required to report those injuries to the PM and to HR. SGT offers paid medical leave as part of its comprehensive benefits package. Employees may be required to have a doctor's certification to return to work after taking medical leave for a work-related injury.

SGT will comply with the requirements stated in Enclosure A to the METS RFP. We will address these requirements with all new employees as part of our standard new employee orientation. The Enclosure A requirements follow:

- All medical examinations will comply with OSHA 1910.120(f). All work-related medical records will be maintained by SGT HR.
- A letter stating successful medical examination results will be provided to the Chemical Hygiene Representative prior to working in the Laboratory. Current medical examinations will be required as prerequisite to work in areas requiring medicals.
- Personnel required to wear respiratory protection will receive a baseline medical examination and an annual evaluation. Personnel must pass the exam to work in areas that require respiratory protection.



- Personnel serving on the 553 Laboratory Response Team (LRT) will receive a medical examination prior to being assigned LRT duties and at least annually to determine their physical fitness to perform duties during emergency situations.
- Any LRT employee terminating work in the DDL and Building 11 will receive a medical exam if their last exam was more than 6 months prior to the termination date.
- SGT will allow only authorized personnel familiar with the hazards to perform maintenance on equipment containing hazardous materials. Personnel performing maintenance on systems containing hazardous materials where they may be exposed at or above the permissible exposure limits will receive a medical exam prior to assignment and at least annually. Any maintenance employee terminating work in the Branch labs and Building 11 will receive a medical exam if their last examination was more than 6 months prior to the termination date.
- If an employee develops signs or symptoms indicating a possible exposure or periodic exposure monitoring indicates possible exposure to hazardous materials used in the Code 553 detector laboratories, the employee will promptly receive a medical examination. If the symptoms develop during normal business hours, employees are to report to the GSFC Medical Facility. If the incident occurs during off-duty hours, the employee will report to the nearest hospital or medical facility. The GSFC Medical Facility will be given a written report from the outside facility as soon as possible. SGT will inform the employee to pursue follow-up examinations with the GSFC Medical Facility.

As required by NPR 8715.3, 1.5, Assignment of Responsibility, our point of contact is SGT Human Resources, 7701 Greenbelt Rd, Suite 400, Greenbelt, MD 20770, 301-486-3134. We will provide this contact information to the GSFC Medical Facility.

will facilitate communication of medical data to the GSFC Medical Facility. SGT does not employ a resident company physician.

4.5 EMERGENCY RESPONSE

SGT will coordinate with our FOMs and Code 250 for emergency preparedness and contingency planning which addresses fire, explosion, inclement weather, and environmental releases. SGT will comply with Title 29 CFR 1910.120 HAZWOPER (relating to hazardous operations). SGT will also coordinate with GSFC to define SGT's role in the local Incident Command System. SGT personnel will comply with the building evacuation plan. In our capacity as the Building 26 Alternate FOM we have contributed to the Building 26 Evacuation Plan. We will apply the insight gained from this experience to our compliance with evacuation plans for all buildings occupied in support of the METS contract.

4.6 SAFETY AND HEALTH TRAINING

SGT will conduct a safety orientation briefing for all current and new employees, including the videotape "NASA/GSFC Safety, Environmental, and Security Awareness." Attachment 5 provides sample briefing materials. SGT will conduct additional training over the course of the METS contract as necessary, for example, as a result of any mishaps or near misses where lessons learned/corrective action plans indicate the need for such additional training.

All employees and subcontractors involved in handling hazardous materials are required to be trained and certified on the safety procedures for handling those materials. The Safety Representatives are responsible for identifying employees requiring additional safety training. The METS Safety Officer is responsible for coordinating training and certifications across the METS



contract. Copies of training completion certificates or logs will be maintained by the METS Safety Officer and all METS team members HR departments in the employee file.

SGT will coordinate with appropriate FOMs and Code 250 to identify appropriate on-site training resources. We will distribute safety bulletins on a regular basis. An example of such a safety awareness bulletin, which also serves well to summarize GSFC's and our safety philosophy, is shown in Exhibit 4-4. We believe our policy aligns well with that of GSFC.

Exhibit 4-4. GSFC's and SGT's Safety Philosophy Summary

Safety Accountability Program Key Points

1. All injuries can be prevented. Safety is an attitude. Be safety conscious. Some people work twenty years at a job and never get hurt and others have several injuries in just a month or two.
2. All hazards can be controlled. Over 90% of injuries are due to unsafe acts. Choose to be safety conscious. Sometimes the other person is not being safety conscious. Just as you drive defensively, you need to work defensively. Approach the task with some caution. Think about the potential hazards.
3. If there is an unsafe condition, report it to your supervisor so it can be corrected. Management is responsible and accountable for preventing injuries. If you need further assistance, contact Code 205.
4. Think of others before you leave an unsafe condition unresolved. If you spill coffee on the floor, clean it up before someone slips on it.
5. Wear personal protective equipment when it has been issued to you. Expensive equipment does no good if it remains on a hook in the locker.
6. Obey and enforce safety standards. If you are unclear about a safety policy, call Code 205. They will be glad to clarify any safety policies. Remember that working safely is a condition of employment.
7. Don't let the same mishap occur again. Investigate mishaps and near-misses not only to learn lessons, but also to facilitate permanent correction of policies.
8. Inspect equipment for hazards. Be proactive towards safety. Unsafe conditions left uncorrected will cause injuries.
9. Attend accident prevention training classes. A number of classes are available at the center. Contact the OHR Training Office for information.
10. Make safety the first part of every day and every job. Whenever there is a conflict between safety objectives and mission objectives, safety shall be our first consideration.

(Source: "Safety First" Supervisor's Safety Meeting Training Package)



SGT Team

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Attachment 1

Program Evaluation Profile



THE PROGRAM EVALUATION PROFILE (PEP)

Each of the elements and factors of the PEP may be scored from 1 to 5, indicating the level of the safety and health program, as follows:

Overall Score	Level of Safety and Health Program
5	Outstanding program
4	Superior program
3	Basic program
2	Developmental program
1	No program or ineffective program

Scoring. Score the establishment on each of the factors and elements after obtaining the necessary information to do so. These shall be given a score of 1, 2, 3, 4, or 5.

Refer to the **PEP Tables**, Appendix B of this notice, as appropriate, to ensure that the score given to a factor corresponds to the descriptor that best fits the worksite. Determine scores for each of the six elements as follows:

The score for the *Management Leadership and Employee Participation* element shall be whichever is the lowest of the following:

The score for the *Management Leadership* factor, or

The score for the *Employee Participation* factor, or

The average score for all four factors.

For the sixth element, *Training*, just determine the level 1-5 that best fits the worksite and note it in the appropriate box on the PEP.

For each of the other four elements, *average* the scores for the factors.

If the employer declines to provide pertinent information regarding one or more factors or elements, a score of 1 shall be recorded for the factor or element.

If the element or factor does not apply to the worksite being inspected, a notation of "Not Applicable" shall be made in the space provided. This shall be represented by "N/A" or, in IMIS applications, "0." This shall not affect the score.

Overall Score. An "Overall Score" for the worksite will be recorded on the PEP. This will be the average of the six individual scores for elements, rounded to the nearest whole number (1, 2, 3, 4, or 5). Round up from one-half (.5) or greater; round down from less than one-half (.5).

EXAMPLE: A PEP's element scores are:

$$\begin{array}{r}
 2.5 \\
 2.7 \\
 2.3 \\
 3.0 \\
 2.3 \\
 +2.0 \\
 \hline
 14.8
 \end{array}
 \quad
 \begin{array}{r}
 14.8 \\
 \hline
 6
 \end{array}
 = 2.467 = 2 \text{ PEP Score}$$



PEP Program Evaluation Profile		Management Leadership and Employee Participation				Workplace Analysis			Accident and Record Analysis		Hazard Prevention and Control			Emergency Response		Safety and Health Training
		Management Leadership	Employee Participation	Implementation	Contractor Safety	Survey and Hazard Analysis	Inspection	Reporting	Accident Investigation	Data Analysis	Hazard Control	Maintenance	Medical Program	Emergency Preparedness	First Aid	Training
Employer:																
Inspection No.:																
Date:																
CSHO ID:																
Outstanding	5															
Superior	4															
Basic	3															
Developmental	2															
Absent or Ineffective	1															
Score for element																
Overall Score																

OSHA-195 (3/96)

Attachment B—The PEP Tables

- The text in each block provides a description of the program element or factor that corresponds to the level of program that the employer has implemented in the workplace.
- To avoid duplicative language, each level should be understood as containing all positive factors included in the level below it. Similarly, each element score should be understood as containing all positive factors of the element scores below it. That is, a 3 is at least as good as a 2; a 4 is at least as good as a 3, and so on.
- The descriptors are intended as brief illustrations of a workplace at a particular level. In exercising their professional judgment, compliance officers should proceed with the understanding that the descriptor that “best fits” will not necessarily match the workplace exactly or in literal detail.



Management Leadership and Employee Participation

Management Leadership

Visible management leadership provides the motivating force for an effective safety and health program. [1989 Voluntary Safety and Health Program Management Guidelines, (b)(1) and (c)(1)]

- 1 Management demonstrates no policy, goals, objectives, or interest in safety and health issues at this worksite.
2 Management sets and communicates safety and health policy and goals, but remains detached from all other safety and health efforts.
3 Management follows all rules and gives visible support to the safety and health efforts of others.
4 Management participates in significant aspects of the site's safety and health program, such as site inspections, incident reviews, and program reviews. Incentive programs that discourage reporting of accidents, symptoms, injuries, or hazards are absent. Other incentive programs may be present.
5 Site safety and health issues are regularly included on agendas of management operations meetings. Management clearly demonstrates—by involvement, support, and example—the primary importance of safety and health for everyone on the worksite. Performance is consistent and sustained or has improved over time.

Employee Participation

Employee participation provides the means through which workers identify hazards, recommend and monitor abatement, and otherwise participate in their own protection. [Guidelines, (b)(1) and (c)(1).]

- 1 Worker participation in workplace safety and health concerns is not encouraged. Incentive programs are present which have the effect of discouraging reporting of incidents, injuries, potential hazards, or symptoms. Employees/employee representatives are not involved in the safety and health program.
2 Workers and their representatives can participate freely in safety and health activities at the worksite without fear of reprisal. Procedures are in place for communication between employer and workers on safety and health matters. Worker rights under the Occupational Safety and Health Act to refuse or stop work that they reasonably believe involves imminent danger are understood by workers and honored by management. Workers are paid while performing safety activities.
3 Workers and their representatives are involved in the safety and health program, involved in inspection of work area, and are permitted to observe monitoring and receive results. Workers' and representatives' right of access to information is understood by workers and recognized by management. A documented procedure is in place for raising complaints of hazards or discrimination and receiving timely employer responses.
4 Workers and their representatives participate in workplace analysis, inspections and investigations, and development of control strategies throughout facility, and have necessary training and education to participate in such activities. Workers and their representatives have access to all pertinent health and safety information, including safety reports and audits. Workers are informed of their right to refuse job assignments that pose serious hazards to themselves pending management response.
5 Workers and their representatives participate fully in development of the safety and health program and conduct of training and education. Workers participate in audits, program reviews conducted by management or third parties, and collection of samples for monitoring purposes, and have necessary training and education to participate in such activities. Employer encourages and authorizes employees to stop activities that present potentially serious safety and health hazards.

Implementation

Implementation means tools, provided by management, that include: [Guidelines, (b)(1) and (c)(1)]

- Budget
- Information
- Personnel
- Assigned responsibility
- Adequate expertise and authority
- Means to hold responsible persons accountable (line accountability)
- Program review procedures.

- 1 Tools to implement a safety and health program are inadequate or missing.
2 Some tools to implement a safety and health program are adequate and effectively used; others are ineffective or inadequate. Management assigns responsibility for implementing a site safety and health program to identified person(s). Management's designated representative has authority to direct abatement of hazards that can be corrected without major capital expenditure.
3 Tools to implement a safety and health program are adequate, but are not all effectively used. Management representative has some expertise in hazard recognition and applicable OSHA requirements. Management keeps or has access to applicable OSHA standards at the facility, and seeks appropriate guidance information for interpretation of OSHA standards. Management representative has authority to order/purchase safety and health equipment.
4 All tools to implement a safety and health program are more than adequate and effectively used. Written safety procedures, policies, and interpretations are updated based on reviews of the safety and health program. Safety and health expenditures, including training costs and personnel, are identified in the facility budget. Hazard abatement is an element in management performance evaluation.
5 All tools necessary to implement a good safety and health program are more than adequate and effectively used. Management safety and health representative has expertise appropriate to facility size and process, and has access to professional advice when needed. Safety and health budgets and funding procedures are reviewed periodically for adequacy.

Contractor Safety

Contractor safety: An effective safety and health program protects all personnel on the worksite, including the employees of contractors and subcontractors. It is the responsibility of management to address contractor safety. [Guidelines, (b)(1) and (c)(1)]

- 1 Management makes no provision to include contractors within the scope of the worksite's safety and health program.
2 Management policy requires contractor to conform to OSHA regulations and other legal requirements.
3 Management designates a representative to monitor contractor safety and health practices, and that individual has authority to stop contractor practices that expose host or contractor employees to hazards. Management informs contractor and employees of hazards present at the facility.
4 Management investigates a contractor's safety and health record as one of the bidding criteria.



Management Leadership and Employee Participation

5 The site's safety and health program ensures protection of everyone employed at the worksite, i.e., regular full-time employees, contractors, temporary and part-time employees.

**Workplace Analysis
Survey and Hazard Analysis**

Survey and Hazard Analysis: An effective, proactive safety and health program will seek to identify and analyze all hazards. In large or complex workplaces, components of such analysis are the comprehensive survey and analyses of job hazards and changes in conditions. [Guidelines, (c)(2)(i)]

- 1 No system or requirement exists for hazard review of planned/changed/new operations. There is no evidence of a comprehensive survey for safety or health hazards or for routine job hazard analysis.
- 2 Surveys for violations of standards are conducted by knowledgeable person(s), but only in response to accidents or complaints. The employer has identified principal OSHA standards that apply to the worksite.
- 3 Process, task, and environmental surveys are conducted by knowledgeable person(s) and updated as needed and as required by applicable standards. Current hazard analyses are written (where appropriate) for all high-hazard jobs and processes; analyses are communicated to and understood by affected employees. Hazard analyses are conducted for jobs/tasks/workstations where injury or illnesses have been recorded.
- 4 Methodical surveys are conducted periodically and drive appropriate corrective action. Initial surveys are conducted by a qualified professional. Current hazard analyses are documented for all work areas and are communicated and available to all the workforce; knowledgeable persons review all planned/changed/new facilities, processes, materials, or equipment.
- 5 Regular surveys including documented comprehensive workplace hazard evaluations are conducted by certified safety and health professional or professional engineer, etc. Corrective action is documented and hazard inventories are updated. Hazard analysis is integrated into the design, development, implementation, and changing of all processes and work practices.

Inspection: To identify new or previously missed hazards and failures in hazard controls, an effective safety and health program will include regular site inspections. [Guidelines, (c)(2)(ii)]

- 1 No routine physical inspection of the workplace and equipment is conducted.
- 2 Supervisors dedicate time to observing work practices and other safety and health conditions in work areas where they have responsibility.
- 3 Competent personnel conduct inspections with appropriate involvement of employees. Items in need of correction are documented. Inspections include compliance with relevant OSHA standards. Time periods for correction are set.
- 4 Inspections are conducted by specifically trained employees, and all items are corrected promptly and appropriately. Workplace inspections are planned with key observations or check points defined and results documented. Persons conducting inspections have specific training in hazard identification applicable to the facility. Corrections are documented through follow-up inspections. Results are available to workers.
- 5 Inspections are planned and overseen by certified safety or health professionals. Statistically valid random audits of compliance with all elements of the safety and health program are conducted. Observations are analyzed to evaluate progress.

Hazard Reporting

A reliable Hazard Reporting System enables employees, without fear of reprisal, to notify management of conditions that appear hazardous and to receive timely and appropriate responses. [Guidelines, (c)(2)(iii)]

- 1 No formal hazard reporting system exists, or employees are reluctant to report hazards.
- 2 Employees are instructed to report hazards to management. Supervisors are instructed and are aware of a procedure for evaluating and responding to such reports. Employees use the system with no risk of reprisals.
- 3 A formal system for hazard reporting exists. Employee reports of hazards are documented, corrective action is scheduled, and records maintained.
- 4 Employees are periodically instructed in hazard identification and reporting procedures. Management conducts surveys of employee observations of hazards to ensure that the system is working. Results are documented.
- 5 Management responds to reports of hazards in writing within specified time frames. The workforce readily identifies and self-corrects hazards; they are supported by management when they do so.

Accident and Record Analysis

Accident Investigation

Accident Investigation: An effective program will provide for investigation of accidents and "near miss" incidents, so that their causes, and the means for their prevention, are identified. [Guidelines, (c)(2)(iv)]

- 1 No investigation of accidents, injuries, near misses, or other incidents is conducted.
- 2 Some investigation of incidents takes place, but root cause may not be identified, and correction may be inconsistent. Supervisors prepare injury reports for lost time cases.
- 3 OSHA-101 is completed for all recordable incidents. Reports are generally prepared with cause identification and corrective measures prescribed.
- 4 OSHA-recordable incidents are always investigated, and effective prevention is implemented. Reports and recommendations are available to employees. Quality and completeness of investigations are systematically reviewed by trained safety personnel.
- 5 All loss-producing accidents and "near-misses" are investigated for root causes by teams or individuals that include trained safety personnel and employees.



Accident and Record Analysis

Management Leadership and Employee Participation

Data Analysis: An effective program will analyze injury and illness records for indications of sources and locations of hazards, and jobs that experience higher numbers of injuries. By analyzing injury and illness trends over time, patterns with common causes can be identified and prevented. [Guidelines, (c)(2)(v)]

- 1 Little or no analysis of injury/illness records; records (OSHA 200/101, exposure monitoring) are not kept.
2 Data is collected and analyzed, but not widely used for prevention. OSHA-101 is completed for all recordable cases. Exposure records and analyses are organized and are available to safety personnel.
3 Injury/illness logs and exposure records are kept correctly, are audited by facility personnel, and are essentially accurate and complete. Rates are calculated so as to identify high risk areas and jobs. Workers compensation claim records are analyzed and the results used in the program. Significant analytical findings are used for prevention.
4 Employer can identify the frequent and most severe problem areas, the high risk areas and job classifications, and any exposures responsible for OSHA recordable cases. Data are fully analyzed and effectively communicated to employees. Illness/injury data are audited and certified by a responsible person.
5 All levels of management and the workforce are aware of results of data analyses and resulting preventive activity. External audits of accuracy of injury and illness data, including review of all available data sources are conducted. Scientific analysis of health information, including non-occupational databases is included where appropriate in the program.

Hazard Prevention and Control

Hazard Control

Hazard Control: Workforce exposure to all current and potential hazards should be prevented or controlled by using engineering controls (wherever feasible and appropriate), work practices and administrative controls, and personal protective equipment (PPE). [Guidelines, (c)(3)(i)]

- 1 Hazard control is seriously lacking or absent from the facility.
2 Hazard controls are generally in place, but effectiveness and completeness vary. Serious hazards may still exist. Employer has achieved general compliance with applicable OSHA standards regarding hazards with a significant probability of causing serious physical harm. Hazards that have caused past injuries in the facility have been corrected.
3 Appropriate controls (engineering, work practice, administrative controls, and PPE) are in place for significant hazards. Some serious hazards may exist. Employer is generally in compliance with voluntary standards, industry practices, and manufacturers' and suppliers' safety recommendations. Documented reviews of needs for machine guarding, energy lockout, ergonomics, materials handling, bloodborne pathogens, confined space, hazard communication, and other generally applicable standards have been conducted. The overall program tolerates occasional deviations.
4 Hazard controls are fully in place and are known and supported by the workforce. Few serious hazards exist. The employer requires strict and complete compliance with all OSHA, consensus, and industry standards and recommendations. All deviations are identified and causes determined.
5 Hazard controls are fully in place and continually improved upon based on workplace experience and general knowledge. Documented reviews of needs are conducted by certified health and safety professionals or professional engineers, etc.

Maintenance

Maintenance: An effective safety and health program will provide for facility and equipment maintenance, so that hazardous breakdowns are prevented. [Guidelines, (c)(3)(ii)]

- 1 No preventive maintenance program is in place; breakdown maintenance is the rule.
2 There is a preventive maintenance schedule, but it does not cover everything and may be allowed to slide or performance is not documented. Safety devices on machinery and equipment are generally checked before each production shift.
3 A preventive maintenance schedule is implemented for areas where it is most needed; it is followed under normal circumstances. Manufacturers' and industry recommendations and consensus standards for maintenance frequency are complied with. Breakdown repairs for safety related items are expedited. Safety device checks are documented. Ventilation system function is observed periodically.
4 The employer has effectively implemented a preventive maintenance schedule that applies to all equipment. Facility experience is used to improve safety-related preventative maintenance scheduling.
5 There is a comprehensive safety and preventive maintenance program that maximizes equipment reliability.

Medical Program

Medical Program: An effective safety and health program will include a suitable medical program where it is appropriate for the size and nature of the workplace and its hazards. [Guidelines, (c)(3)(iv)]

- 1 Employer is unaware of, or unresponsive to medical needs. Required medical surveillance, monitoring, and reporting are absent or inadequate.
2 Required medical surveillance, monitoring, removal, and reporting responsibilities for applicable standards are assigned and carried out, but results may be incomplete or inadequate.
3 Medical surveillance, removal, monitoring, and reporting comply with applicable standards. Employees report early signs/symptoms of job-related injury or illness and receive appropriate treatment.
4 Health care providers provide follow-up on employee treatment protocols and are involved in hazard identification and control in the workplace. Medical surveillance addresses conditions not covered by specific standards. Employee concerns about medical treatment are documented and responded to.
5 Health care providers are on-site for all production shifts and are involved in hazard identification and training. Health care providers periodically observe the work areas and activities and are fully involved in hazard identification and training.



Emergency Response
Emergency Preparedness

Emergency Preparedness: There should be appropriate planning, training, drills, and equipment for response to emergencies. Note: In some facilities the employer plan is to evacuate and call the fire department. In such cases, only applicable items listed below should be considered. [Guidelines, (c)(3)(iii) and (iv)]

- 1 Little or no effective effort to prepare for emergencies.
- 2 Emergency response plans for fire, chemical, and weather emergencies as required by Title 29 CFR 1910.38, 1910.120, or 1926.35 are present. Training is conducted as required by the applicable standard. Some deficiencies may exist.
- 3 Emergency response plans have been prepared by persons with specific training. Appropriate alarm systems are present. Employees are trained in emergency procedures. The emergency response extends to spills and incidents in routine production. Adequate supply of spill control and PPE appropriate to hazards on site is available.
- 4 Evacuation drills are conducted no less than annually. The plan is reviewed by a qualified safety and health professional.
- 5 Designated emergency response team with adequate training is on-site. All potential emergencies have been identified. Plan is reviewed by the local fire department. Plan and performance are reevaluated at least annually and after each significant incident. Procedures for terminating an emergency response condition are clearly defined.

First Aid

First aid/emergency care should be readily available to minimize harm if an injury or illness occurs. [Guidelines, (c)(3)(iii) and (iv)]

- 1 Neither on-site nor nearby community aid (e.g., emergency room) can be ensured.
- 2 Either on-site or nearby community aid is available on every shift.
- 3 Personnel with appropriate first aid skills commensurate with likely hazards in the workplace and as required by OSHA standards (e.g., 1910.151, 1926.23) are available. Management documents and evaluates response time on a continuing basis.
- 4 Personnel with certified first aid skills are always available on-site; their level of training is appropriate to the hazards of the work being done. Adequacy of first aid is formally reviewed after significant incidents.
- 5 Personnel trained in advanced first aid and/or emergency medical care are always available on-site. In larger facilities a health care provider is on-site for each production shift.

Safety and Health Training

Training

Safety and health training should cover the safety and health responsibilities of all personnel who work at the site or affect its operations. It is most effective when incorporated into other training about performance requirements and job practices. It should include all subjects and areas necessary to address the hazards at the site. [Guidelines, (b)(4) and (c)(4)]

- 1 Facility depends on experience and peer training to meet needs. Managers/supervisors demonstrate little or no involvement in safety and health training responsibilities.
- 2 Some orientation training is given to new hires. Some safety training materials (e.g., pamphlets, posters, videotapes) are available or are used periodically at safety meetings, but there is little or no documentation of training or assessment of worker knowledge in this area. Managers generally demonstrate awareness of safety and health responsibilities, but have limited training themselves or involvement in the site's training program.
- 3 Training includes OSHA rights and access to information. Training required by applicable standards is provided to all site employees. Supervisors and managers attend training in all subjects provided to employees under their direction. Employees can generally demonstrate the skills/knowledge necessary to perform their jobs safely. Records of training are kept and training is evaluated to ensure that it is effective.
- 4 Knowledgeable persons conduct safety and health training that is scheduled, assessed, and documented, and addresses all necessary technical topics. Employees are trained to recognize hazards, violations of OSHA standards, and facility practices. Employees are trained to report violations to management. All site employees—including supervisors and managers—can generally demonstrate preparedness for participation in the overall safety and health program. There are easily retrievable scheduling and recordkeeping systems.
- 5 Knowledgeable persons conduct safety and health training that is scheduled, assessed, and documented. Training covers all necessary topics and situations, and includes all persons working at the site (hourly employees, supervisors, managers, contractors, part-time, and temporary employees). Employees participate in creating site-specific training methods and materials. Employees are trained to recognize inadequate responses to reported program violations. Retrievable recordkeeping system provides for appropriate retraining, make-up training, and modifications to training as the result of evaluations.



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Attachment 2
Clause 52.223-3
**Hazardous Material Identification and Material
Safety Data**



HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA (52.223-3) (JAN 1997)—ALTERNATE I (JUL 1995)

(a) "Hazardous material," as used in this clause, includes any material defined as hazardous under the latest version of Federal Standard No. 313 (including revisions adopted during the term of the contract).

(b) The offeror must list any hazardous material, as defined by paragraph (a) of this clause, to be delivered under this contract. The hazardous material shall be properly identified and include any applicable identification number, such as National Stock Number or Special Item Number. This information shall also be included on the Material Safety Data Sheet submitted under this contract.

Material (if none, insert NONE)

.....

.....

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.....

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.....

.....

Identification No.

(c) This list must be updated during performance of the contract whenever the Contractor determines that any other material to be delivered under this contract is hazardous.

(d) The apparently successful offeror agrees to submit, for each item as required prior to award, a Material Safety Data Sheet, meeting the requirements of Title 29 CFR 1910.1200 (g) and the latest version of Federal Standard No. 313, for all hazardous material identified in paragraph (b) of this clause. Data shall be submitted in accordance with Federal Standard No. 313, whether or not the apparently successful offeror is the actual manufacturer of these items. Failure to submit the Material Safety Data Sheet prior to award may result in the apparently successful offer being considered nonresponsible and ineligible for award.

(e) If, after award, there is a change in the composition of the item(s) or a revision to Federal Standard No. 313, which render incomplete or inaccurate the data submitted under paragraph (d) of this clause, the Contractor shall promptly notify the Contacting Officer and resubmit the data.



(f) Neither the requirements of this clause nor any act or failure to act by the Government shall relieve the Contractor of any responsibility or liability for the safety of Government, Contractor, or subcontractor personnel or property.

(g) Nothing contained in this clause shall relieve the Contractor from complying with applicable federal, state, and local laws, codes, ordinances, and regulations (including the obtaining of licenses and permits) in connection with hazardous material.

(h) The Government's rights in data furnished under this contract with respect to hazardous material are as follows:

(1) To use, duplicate, and disclose any data to which this clause is applicable. The purposes of this right are to—

(i) Apprise personnel of the hazards to which they may be exposed in using, handling, packaging, transporting, or disposing of hazardous material;

(ii) Obtain medical treatment for those affected by the material; and

(iii) Have others use, duplicate, and disclose the data for the Government for these purposes.

(2) To use, duplicate, and disclose data furnished under this clause, in accordance with subparagraph (h) (1) of this clause, in precedence over any other clause of this contract providing for rights in data.

(3) The Government is not precluded from using similar or identical data acquired from other sources:

(i) Except as provided in paragraph (i) 2., the Contractor shall prepare and submit a sufficient number of Material Safety Data Sheets (MSDSs), meeting the requirements of Title 29 CFR 1910.1200 (g) and the latest version for Federal Standard No 313, for all hazardous material identified in paragraph (b) of this clause.

1. For items shipped to consignees, the contractor shall include a copy of the MSDSs with the packing list or other suitable shipping document that accompanies each shipment. Alternatively, the Contractor is permitted to transmit MSDSs to consignees in advance of receipt of shipments by consignees, if authorized by the Contracting Officer.

2. For items shipped to consignees identified by mailing address as agency depots, distribution center or customer supply center, the Contractor shall provide one copy of the MSDs in or on each shipping container. If affixed to the outside of each container, the MSDs must be placed in a weather resistant envelope.

(End of clause)



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Attachment 3

Facility Inspection Items



Date Evaluated: _____

Evaluator: _____

FACILITY INSPECTION ITEMS

1. AISLES AND PASSAGEWAYS

- A. Where mechanical handling equipment is used, sufficient safe clearance shall be allowed for aisles at loading docks, through doorways, and whenever turns or passage must be made.
- B. Aisles and passageways shall be kept clear and in good repair with no obstructions across or in aisles that could create hazards.
- C. Permanent aisles and passageways shall be appropriately marked.

2. CHAINS, CABLES, ROPES, HOOKS, ETC.

- A. Chains, cables, ropes, slings, etc. shall be inspected daily, and defective gear shall be removed and repaired or replaced.
- B. Hoist chains and hoist ropes shall be free from kinks or twists and shall not be wrapped around the load.
- C. All U-bolt wire rope clips or hoist ropes shall be installed so that the U-bolt is in contact with the dead end (short or nonload carrying end) of the rope. Clips shall be installed in accordance with the clip manufacturer's recommendation. All nuts or newly installed clips shall be retightened after 1 hour of use.

3. CHIP GUARDS

- Protective shields and barriers shall be provided, in operations involving cleaning with compressed air, to protect personnel against flying chips or other such hazards.

4. COMPRESSED AIR, USE OF

- Compressed air used for cleaning purposes shall not exceed 30 psi when the nozzle end is obstructed or dead-ended, and then only with effective chip guarding and personal protective equipment.

5. CRANES AND HOISTS (OVERHEAD AND GANTRY)

- A. All functional operating mechanisms, air, and hydraulic systems, chains, rope slings, hooks, and other lifting equipment shall be visually inspected daily.



- B. Complete inspection of the crane shall be performed at intervals depending on its activity, severity of service, and environment.
- C. Overhead cranes shall have stops at the limit of the travel of the trolley. Bridge trucks shall have rail sweeps.
- D. The rated load of the crane shall be plainly marked on each side of the crane. If the crane has more than one hoisting unit, each hoist shall have its rated load marked on it or its load block, and this marking shall be clearly legible from the ground floor.

6. DRILL PRESSES

- The V-belt of all drill presses, including usual front and rear pulleys, shall be guarded to protect the operator from contact or breakage.

7. ELECTRICAL

- A. Power cords shall be connected directly into a receptacle (do not use extension cords).
- B. Route power cords in a manner that will not create a tripping hazard.
- C. Power cords that have been spliced or are frayed or cracked shall not be used.
- D. All electrical equipment shall be marked to show the manufacturer's name, trademark, or other descriptive marking that identifies who is responsible for the product.
- E. All fixed equipment shall be properly grounded.

8. EMERGENCY FLUSHING, EYES AND BODY

- Where the eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use.

9. EXITS

- A. Every building designed for human occupancy shall be provided with exits sufficient to permit the prompt escape for occupants in case of emergency.
- B. In hazardous areas, or where employees may be endangered by the blocking of any single means of egress due to fire or smoke, there shall be at least two means of egress remote from each other.
- C. Exits and the way of approach and travel from exits shall be maintained so that they are unobstructed and are accessible at all times.
- D. All exits shall discharge directly to the street or other open space that gives safe access to a public way.



- E. Exit doors serving more than 50 people, or at high hazard areas, shall swing in the direction of travel.
- F. Exits shall be marked by readily visible, suitably illuminated exit signs. Exit signs shall be distinctive in color and provide contrast with surroundings. The word "EXIT" shall be of plainly legible letters, not less than 6 inches high.

10. EYE AND FACE PROTECTION

- Protective eye and face equipment shall be required where there is a reasonable probability of injury that can be prevented by such equipment.

11. FAN BLADES

- When the periphery of the blades of a fan is less than 7 feet above the floor or working level, the blades shall be guarded. The guard shall have openings no larger than one half inch in their least dimension. The use of fabric nets with one half inch maximum opening to modify existing substandard guards is acceptable.

12. FIRE PROTECTION

- A. Portable fire extinguishers suitable to the conditions and hazards involved shall be provided and maintained in an effective operating condition.
- B. Portable fire extinguishers shall be conspicuously located and mounted where they will be readily accessible. Extinguishers shall not be obstructed or obscured from view.

13. FLOORS, GENERAL CONDITION

- A. All floor surfaces shall be kept clean, dry, and free from protruding nails, splinters, loose boards, holes, or projections.
- B. Where wet processes are used, drainage shall be maintained, and false floors, platforms, mats, or other dry standing places should be provided where practicable.

14. FLOOR OPENINGS, HATCHWAYS, OPEN SIDES, ETC.

- A. Floor openings shall be guarded by a standard railing on all exposed sides, or be protected by a suitable cover.
- B. Open-sided floors, platforms, etc., 4 feet or more above the adjacent floor or ground level shall be guarded by a standard railing on all open sides, except where there is an entrance to a ramp, stairway, or fixed ladder.

15. FOOT PROTECTION

- Foot protection equipment shall be worn when there is reasonable probability that injury can be prevented by such equipment.



16. HEAD PROTECTION

- Head protection equipment shall be worn when there is reasonable probability that injury can be prevented by such equipment.

17. HANDTOOLS

- A. The contractor shall be responsible for the safe condition of tools and equipment that may be furnished by employees.
- B. All handtools shall be kept in safe condition. Handles of tools shall be kept tight on the tool, and wooden handles shall be free of splinters or cracks. Wedges, chisels, etc., shall be free of mushroomed heads. Wrenches shall not be used when sprung to the point that lapping occurs.
- C. The frames of portable electric tools and equipment, except when using approved double insulated constructions, shall be properly grounded.
- D. Electric power tools and equipment showing worn, deteriorated, or inadequate insulation or other parts shall be removed from service and repaired or replaced.

18. HOUSEKEEPING

- All places of employment, passageways, storerooms, and service rooms shall be kept clean and orderly and in a sanitary condition.

19. MACHINE GUARDING

- One or more methods of machine guarding shall be provided to protect the operator and other employees in the machine area from hazards such as those created by point of operations, in-going nip points, rotating parts, and flying chips or sparks.

20. MACHINERY, FIXED

- Machines designed for affixed location shall be securely anchored to prevent walking or moving or designed in such a manner that they will not move in normal operation.

21. MATS, INSULATING

- Where motors or controllers operating at more than 150 volts to ground are guarded against accidental contact only by location, and where adjustment or other attendance may be necessary during operations, suitable insulating mats or platforms shall be provided.



22. PERSONAL PROTECTIVE EQUIPMENT

- Proper personal protective equipment, including shields and barriers, shall be provided, used, and maintained in a sanitary and reliable condition where there is a hazard from processes or environment that may cause injury or illness to the employees.

23. RAILINGS

- A. A standard railing shall consist of top rail, intermediate rail and posts and shall have a vertical height of 42 inches from upper surface of top rail to floor, platform, etc.
- B. A railing for open-sided floors, platforms, and runways shall have a toeboard, whenever, beneath the open side, persons can pass, there is moving machinery, or there is equipment with which falling materials could cause a hazard.
- C. Railings shall be of such constructions that the complete structure shall be capable of withstanding a load of at least 200 pounds in any direction on any point on the top rail.
- D. A stair railing shall be of construction similar to a standard railing, but the vertical height shall be not more than 34 inches or less than 30 inches from upper surface of top rail to surface of tread inline with face of riser or forward edge of tread.

24. STAIRS, FIXED INDUSTRIAL

- A. Every flight of stairs having four or more risers shall be provided with a standard railing on all open sides. Handrails shall be provided on at least one side of closed stairways, preferably on the right side descending.
- B. Stairs shall be constructed so that rise height and tread width is uniform throughout.
- C. Fixed stairways shall have a minimum width of 22 inches.

25. STATIONARY ELECTRICAL DEVICES

- All stationary electrically powered equipment, tools, and devices, located within reach of a person who can make contact with any grounded surface or object, shall be grounded.

26. STORAGE

- A. All storage shall be stacked, blocked, interlocked, and limited in height so that it is secure against sliding or collapse.
- B. Storage areas shall be kept free from accumulation of materials that constitute hazards or pest harborage. Vegetation control will be exercised when necessary.



- C. Where mechanical handling equipment is used, sufficient safe clearance shall be allowed for aisles, at loading docks, through doorways, etc.

27. TOEBOARDS

- A. Railings protecting floor openings, platforms, scaffolds, etc. shall be equipped with toeboards whenever, beneath the open side, persons can pass, there is moving machinery, or there is equipment with which falling material could cause a hazard.
- B. A standard toeboard shall be at least 4 inches in height and may be of any substantial material, either solid or open, with openings not to exceed 1 inch in greatest dimension.

28. TOXIC VAPORS, GASES, MISTS, AND DUSTS

- A. Exposure to toxic vapors, gases, mists, or dusts at a concentration above the Threshold Limit Values, contained or referred to in Safety and Health Standards, shall be avoided.
- B. To achieve compliance with paragraph (A), administrative or engineering controls must first be determined and implemented whenever feasible. When such controls are not feasible to achieve full compliance, protective equipment or any other protective measures shall be used to keep the exposure of employees to air contaminants within the limits prescribed. Any equipment and/or technical measures used for this purpose must be approved for each particular use by a competent industrial hygienist or other technically qualified person.

29. TRIPPING HAZARDS

- During the inspection, be alert to the numerous tripping hazards that might exist within the computer laboratory and office areas. These would include such things as poorly placed electrical and telephone stacks, wires running across aisle areas, improperly stored equipment and materials, etc. Where hazards exist, appropriate action is to be taken to eliminate these conditions. The computer laboratory floor should be inspected for leveling, open holes, and missing tile.

30. MISCELLANEOUS HAZARDS

- Signs should be strategically located to alert smokers of areas where smoking may set off smoke alarms. Smoking in confined areas may adversely affect some individuals. Confined areas should be identified and a list of such areas distributed.



31. FIRE HAZARDS

- During the inspection of office, computer, and shop areas, particular emphasis should be placed on elimination of fire hazards. These include such items as excessive accumulation and air conditioning window units. Also included in this category of hazards would be improper storage of combustible items. It is expected that major improvements will be made in all areas to eliminate these hazards.

When fire extinguishers are not available and fire hazards exist, assistance from the GSFC Health and Safety Engineering Office should be requested.

32. HAZARDS FROM FALLING OBJECTS

- A number of employee injuries are caused by falling objects. To minimize the risk of such injuries, the tops of all storage cabinets should be cleared of any stored material. Shelving and cabinets should be checked to ensure that no overloading conditions exist. Injuries of this sort will also occur when equipment is pulled from bench tops as a result of employees tripping over wires improperly laid across walk areas. A thorough examination of computer areas is needed to spot potential hazards, particularly storage areas where paper, tapes, and other supplies are kept. Assistance can be provided by the GSFC Health and Safety Engineering Office.

33. SELDOM USED AND/OR EXCESS FURNITURE AND EQUIPMENT

- Although property inventories provide for the elimination of many items or surplus equipment and furniture, you should still be alert to the continuing need to dispose of equipment prior to and after inventories. Whenever seldom used or excess furniture and equipment are found, necessary action should be taken to store these items or declare them surplus.



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Attachment 4

NASA FORM 1627



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		NASA Mishap Report		MASTER FILE NO.	
Part A: Mishap Details					
NOTE: FILL IN ALL KNOWN UNSHADED BLOCKS WITHIN 24 HOURS.					
DETAILS					
1. DATE OF INCIDENT		2. TIME OF INCIDENT		3. GENERAL LOCATION (Building, Area, Facility, etc.)	
				4. EXACT LOCATION (street, floor, room, etc.)	
5. RESPONSIBLE ORGANIZATION		6. CONTRACT NUMBER		7. ORG. FILE NUMBER	
				8. ORGANIZATION POINT OF CONTACT	
				9. MAIL CODE	
				10. PHONE	
11. MISSION AFFECTED, IF KNOWN			12. PROGRAM IMPACT, IF KNOWN (Describe impact in terms of delay, cost adjustment, etc.)		
13. INCIDENT DESCRIPTION (Do not use actual names, include in the description the sequence of events, extent of injury or property damage, cause, etc., if known.)					
IMPACT SUMMARY					
14. CHECK ALL OUTCOMES FROM THIS EVENT THAT ARE KNOWN FACTS (Do not check any box that indicates any future potential or outcome.)					
<input type="checkbox"/> FATALITY <input type="checkbox"/> PERMANENT DISABILITY <input type="checkbox"/> 3 OR MORE PEOPLE HOSPITALIZED <input type="checkbox"/> 1 OR 2 PEOPLE HOSPITALIZED <input type="checkbox"/> LOSS OF CONSCIOUSNESS <input type="checkbox"/> FULL LOST WORKDAY(S) <input type="checkbox"/> RESTRICTED WORKDAY(S) <input type="checkbox"/> MEDICATION OR MEDICAL TREATMENT ADMINISTERED <input type="checkbox"/> INJURY OR ILLNESS <input type="checkbox"/> SIGNIFICANT PROGRAM IMPACT <input type="checkbox"/> FIRST AID ONLY WAS ADMINISTERED <input type="checkbox"/> CLOSE CALL		<input type="checkbox"/> SERIOUS DAMAGE TO AIRCRAFT OR SPACE HARDWARE <input type="checkbox"/> SERIOUS DAMAGE TO FLIGHT OR GROUND SUPPORT HARDWARE <input type="checkbox"/> UNEXPECTED DAMAGE DUE TO TEST FAILURE <input type="checkbox"/> DAMAGE ESTIMATE OVER \$1,000,000 <input type="checkbox"/> DAMAGE ESTIMATE BETWEEN \$250K AND \$1M <input type="checkbox"/> DAMAGE ESTIMATE BETWEEN \$25K AND \$250K <input type="checkbox"/> DAMAGE ESTIMATE BETWEEN \$1K AND \$25K <input type="checkbox"/> DAMAGE ESTIMATE UNDER \$1K <input type="checkbox"/> AFFECTED PRIMARY OBJECTIVE(S) OF MISSION <input type="checkbox"/> HIGH VISIBILITY (internal or external to NASA)			
15. LEVEL OF POTENTIAL FOR THIS EVENT OR CLOSE CALL (Using reasonable judgment, check the boxes which you believe have a HIGH probability of occurring under similar conditions.)					
<input type="checkbox"/> FATALITY <input type="checkbox"/> PERMANENT DISABILITY <input type="checkbox"/> 3 OR MORE PEOPLE HOSPITALIZED <input type="checkbox"/> FULL LOST WORKDAY(S)		<input type="checkbox"/> POTENTIAL DAMAGE ESTIMATE OVER \$250,000 <input type="checkbox"/> POTENTIAL DAMAGE ESTIMATE UNDER \$250,000 <input type="checkbox"/> SERIOUS DAMAGE TO AIRCRAFT OR SPACE HARDWARE <input type="checkbox"/> SERIOUS DAMAGE TO FLIGHT OR GROUND SUPPORT HARDWARE		<input type="checkbox"/> UNEXPECTED DAMAGE DUE TO TEST FAILURE <input type="checkbox"/> AFFECT PRIMARY OBJECTIVE(S) OF MISSION <input type="checkbox"/> SIGNIFICANT PROGRAM IMPACT <input type="checkbox"/> HIGH VISIBILITY (internal or external to NASA)	
PERSON INVOLVED IN INJURY OR ILLNESS					
16. NAME (Last, First MI)		17. ORGANIZATION		18. CONTRACT NUMBER	
				19. JOB TITLE/OCCUPATION	
20. SUPERVISOR'S NAME (Full Name)		21. SUPERVISOR'S ORGANIZATION		22. SUPERVISOR'S MAIL CODE	
				23. SUPERVISOR'S PHONE	
24. AGE		25. SEX		26. SHIFT WORKED	
		<input type="checkbox"/> Male <input type="checkbox"/> Female		<input type="checkbox"/> 1st <input type="checkbox"/> 2nd <input type="checkbox"/> 3rd	
27. CONTINUOUS DUTY HOURS		28. YEARS OF EXPERIENCE		29. INJURY OR ILLNESS	
		<input type="checkbox"/> Under 1 <input type="checkbox"/> Under 5 <input type="checkbox"/> Under 10 <input type="checkbox"/> Over 10		<input type="checkbox"/> INJURY <input type="checkbox"/> ILLNESS	
30. FROM PRE-EXISTING		31. FATALITY?		32. DATE OF DEATH	
<input type="checkbox"/> YES <input type="checkbox"/> NO		<input type="checkbox"/>		<input type="checkbox"/>	
33. PERMANENT DISABILITY?		34. # OF FULL LOST WORKDAYS		35. # OF RESTRICTED WORKDAYS	
<input type="checkbox"/>					
36. INJURY TYPE(S) (e.g., Abrasion, Burn, Concussion, Laceration, etc.)				37. AFFECTED BODY PART(S) OR BODY SYSTEM(S)	
38. BRIEF MEDICAL DIAGNOSIS					
39. MEDICAL TREATMENT ADMINISTERED					
<input type="checkbox"/> TREATMENT OF INFECTION <input type="checkbox"/> APPLICATION OF ANTISEPTIC <input type="checkbox"/> 2ND OR 3RD DEGREE BURN(S) <input type="checkbox"/> CUT AWAY DEAD SKIN <input type="checkbox"/> POSITIVE X-RAY DIAGNOSIS		<input type="checkbox"/> APPLICATION OF SUTURES <input type="checkbox"/> USE OF BUTTERFLY ADHESIVE <input type="checkbox"/> REMOVAL OF FOREIGN OBJECT(S) <input type="checkbox"/> USE OF HEAT THERAPY <input type="checkbox"/> ADMISSION TO HOSPITAL FOR MORE THAN OBSERVATION		<input type="checkbox"/> REMOVAL OF OBJECT IN WOUND <input type="checkbox"/> USE OF PRESCRIPTION MEDICATION <input type="checkbox"/> HOT OR COLD SOAKING/COMPRESS THERAPY <input type="checkbox"/> USE OF WHIRLPOOL BATH THERAPY <input type="checkbox"/> FIRST-AID ONLY	
40. OTHER MEDICAL TREATMENT ADMINISTERED					
EQUIPMENT/PROPERTY DAMAGED					
41. CLASS OF EQUIPMENT/PROPERTY DAMAGED		42. ESTIMATED COST OF ALL DAMAGED ITEMS		43. # OF ITEMS DAMAGED	
<input type="checkbox"/> FLIGHT HARDWARE <input type="checkbox"/> GROUND SUPPORT EQUIPMENT <input type="checkbox"/> FACILITY <input type="checkbox"/> PRESSURE VESSEL <input type="checkbox"/> MOTOR VEHICLE		<input type="checkbox"/> AIRCRAFT <input type="checkbox"/> OTHER <input type="checkbox"/> OVER \$1,000,000 <input type="checkbox"/> BETWEEN \$250K AND \$1M <input type="checkbox"/> BETWEEN \$25K AND \$250K <input type="checkbox"/> BETWEEN \$1K AND \$25K <input type="checkbox"/> UNDER \$1,000			
43. SPECIFIC ITEM(S) DAMAGED					
SUBMITTER					
44. SUBMITTED BY (Full Name)		45. ORGANIZATION		46. MAIL CODE	
				47. PHONE	
				48. DATE	
				49. TIME	

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NASA Mishap Report

Part B: Causes and Corrective Action

MASTER FILE NO:

CAUSES

50. WHAT WAS THE DIRECT CAUSE(S)	51. WHAT OBJECTS OR SUBSTANCES WERE INVOLVED	52. WHAT ACTIVITIES OR UNSAFE ACTS WERE IN PROGRESS
----------------------------------	--	---

INITIAL CORRECTIVE ACTION

53. INITIAL ACTION TAKEN (Summarize all corrective action taken)

54. DATE INITIATED	55. DATE COMPLETED	56. PERSON TAKING ACTION (Full Name)	57. ORGANIZATION	58. MAIL CODE	59. PHONE
--------------------	--------------------	--------------------------------------	------------------	---------------	-----------

PLANNED CORRECTIVE ACTION

60. PROPOSED ACTION TO BE TAKEN (Summarize any future action to be taken.)

61. EST. START DATE	62. EST. COMPL.	63. PERSON TAKING ACTION (Full Name)	64. ORGANIZATION	65. MAIL CODE	66. PHONE
---------------------	-----------------	--------------------------------------	------------------	---------------	-----------

67. PROPOSED ACTION TO BE TAKEN (Summarize any future action to be taken.)

68. EST. START DATE	69. EST. COMPL.	70. PERSON TAKING ACTION (Full Name)	71. ORGANIZATION	72. MAIL CODE	73. PHONE
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NF 1627 MAR 2001 PREVIOUS EDITIONS ARE OBSOLETE.



Instructions

Complete the initial incident report (unshaded portions) and submit to your local NASA Safety Office within 24 hours of the incident occurrence. Complete and submit the follow-up report (with shaded areas) within ten working days of the incident. Retain a copy for your own files.

Working With This Form

This electronic document is a form. It has fields where you can enter information. You can use the mouse or TAB key to move between fields. The TAB key moves to the next field and SHIFT-TAB moves backwards. Some fields control the types of data that you can enter. You should fill in this form electronically and send it to your local NASA Safety Office by electronic mail.

DETAILS

- 1. DATE OF INCIDENT—Enter date of the incident in MM/DD/YYYY format. Example: 6/1/2001.
2. TIME OF INCIDENT—Enter time of the incident using 24-hour clock. Examples: 09:30 for 9:30 AM or 14:15 for 2:15 PM.
3. GENERAL LOCATION—Identify the building, area, or facility where the incident occurred.
4. EXACT LOCATION—Describe the exact location of the incident. Example: Third floor, far west corridor.
5. RESPONSIBLE ORGANIZATION—Enter complete name of organization that is reporting the incident.
6. CONTRACT NUMBER - When the organization is a contractor, enter the contract number.
7. ORGANIZATION FILE NUMBER—Assign file number using your organization's unique four-character code, the mishap number (sequential) using four digits, and the fiscal year using two digits. Example: EGB1-0001-89.
8 - 10. ORGANIZATION POINT OF CONTACT, MAIL CODE, PHONE—Identify the person to contact at the organization.
11. MISSION AFFECTED—Enter the name or number of the mission, program, or project affected by the mishap. Examples: STS-32; Delta 181.
12. PROGRAM IMPACT—Describe the effect on the mission, program, or project in terms of delay or significant cost adjustment. Example: Two-week launch delay.
13. INCIDENT DESCRIPTION—Describe the event including information about the extent of damage and/or injury, conditions that led to the mishap, and cause if known at this time. Specify location of facility where medical treatment was provided. DO NOT include names of persons.

IMPACT SUMMARY

- 14. ACTUAL OUTCOMES—Mark every checkbox that represents current facts about the incident.
15. LEVEL OF POTENTIAL—Mark every checkbox that represents likely outcomes for the incident.

PERSONNEL INVOLVED IN INJURY OR ILLNESS

(If more than one person was injured, then attach a NASA Mishap Report (NF 1627) with only this section completed for each additional person.)

- 16. NAME—Self-explanatory.
17. ORGANIZATION—Identify the organization of the person involved.
18. CONTRACT NUMBER—When the organization is a contractor, enter the contract number.
19. JOB TITLE/OCCUPATION—Describe the job position of the person involved. Example: Technician
20-23. SUPERVISOR'S NAME, ORGANIZATION, MAIL CODE, & PHONE—Provide identifying information about the supervisor of the person involved.
24. AGE—(of the person involved) Self-explanatory.
25. SEX—Check as appropriate.
26. SHIFT WORKED—Check as appropriate.
27. CONTINUOUS DUTY HOURS—Self-explanatory.
28. YEARS OF EXPERIENCE—Check as appropriate.
29. INJURY OR ILLNESS—Check as appropriate.
30. FROM PRE-EXISTING—Check as appropriate.
31. FATALITY?—



- 32. DATE OF DEATH—
- 33. PERMANENT DISABILITY?
- 34. # OF FULL LOST WORKDAYS—
- 35. # OF RESTRICTED WORKDAYS—
- 36. INJURY TYPE(S)—Choose one or more items from the list. (See instructions below.)
- 37. AFFECTED BODY PART(S) or BODY SYSTEM(S)—Choose one or more items from the list. (See instructions below.)
- 38. BRIEF MEDICAL DIAGNOSIS—
- 39. MEDICAL TREATMENT ADMINISTERED—Mark every checkbox that represents treatment administered to the person involved. Mark the checkbox for "First Aid Only" if only First Aid treatment was administered to the individual.
- 40. MEDICAL TREATMENT ADMINISTERED—Describe any treatment not included in box #39.

EQUIPMENT/PROPERTY DAMAGE

- 41. CLASS OF EQUIPMENT/PROPERTY DAMAGED—Mark every checkbox that represents the type of damaged.
- 42. ESTIMATED COST OF ALL DAMAGED ITEMS—Mark one checkbox that represents the initially estimated cost of the damage. Provide Final Cost in follow-up report.
- 43. # OF ITEMS DAMAGED—
- 43. SPECIFIC ITEM(S) DAMAGED—Identify or describe the damaged items from box #41. Example: If the class indicated in box #41 is Flight Hardware, then the specific item could be "Orbiter/Avionics."

SUBMITTER

- 44-47. SUBMITTED BY, ORGANIZATION, MAIL CODE, & PHONE—Provide identifying information about the person filling in this form.
- 48-49. DATE & TIME—Enter the date and time when the form is filled in.

CAUSES

- 50. DIRECT CAUSE(S)—Choose one or more items from the list. (See instructions below.)
- 51. OBJECTS OR SUBSTANCES INVOLVED—Choose one or more items from the list. (See instructions below.)
- 52. ACTIVITIES OR UNSAFE ACTS IN PROGRESS—Choose one or more items from the list. (See instructions below.)

INITIAL CORRECTIVE ACTION

- 53. INITIAL ACTION TAKEN—
- 54. DATE INITIATED—
- 55. DATE COMPLETED—
- 56-59. PERSON TAKING ACTION, ORGANIZATION, MAIL CODE, & PHONE—Provide identifying information about the person taking the initial corrective action.

PLANNED CORRECTIVE ACTION

- 60. PLANNED ACTION TO BE TAKEN—
- 61. ESTIMATED START DATE—
- 62. ESTIMATED COMPLETION—
- 63-66. PERSON TAKING ACTION, ORGANIZATION, MAIL CODE, & PHONE—Provide identifying information about the person taking the planned corrective action.
- 67. PLANNED ACTION TO BE TAKEN—
- 68. ESTIMATED START DATE—
- 69. ESTIMATED COMPLETION—
- 70-73. PERSON TAKING ACTION, ORGANIZATION, MAIL CODE, & PHONE—Provide identifying information about the person taking the planned corrective action.



Choosing items from a list

The list appears when you move the insertion point to this field. If the field already has data, then clicking with the mouse might not display the list again. In this case, click in an earlier field and use the TAB key to move forward and display the list.

To choose an item from the list first highlight the item you want. You can use the arrow keys or the mouse to highlight the proper item. Then either press the ENTER key, click the Ok button, or double click the item.

The list of items you have chosen is displayed at the top of the window. You can add many items to the list. To remove any item, you must edit the list with the DELETE or BACKSPACE keys. You can edit the list in the list window or you can edit the field on the form.



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Attachment 5
SGT Safety
Briefing Materials



NEW EMPLOYEE SAFETY BRIEFING

Purpose: To welcome new employees.
To acquaint them with safety rules/regulations.
To request their suggestions.

1. Welcome new employees:
 - a) Explain overall company priority and commitment to safety.
 - b) Tell how department or section safety is important.
 - c) Tell how supervisory personnel assist in on-the-job safety.
 - d) Explain how employee cooperation is essential to the project safety effort.
 - e) Brief and provide copy of SGT S&H Plan—include project specifics i.e., PAAC II.
 - f) Show “NASA/GSFC Safety, Environmental, and Security Awareness” Video.
2. SGT has found that accidents do not just happen, but are caused by:
 - a) Unsafe conditions and poor housekeeping.
 - b) Unsafe practices.
 - c) Personnel uninterested in the safety program.
3. Safety rules and regulations are for our protection:
 - a) Employee should know the rules before she/he starts on the job and must make every effort to follow them.
 - b) Rules include knowing locations and operation of fire protection equipment, basic first aid procedures, emergency reporting.
4. The following are some of the major safety precautions each employee should observe:
 - a) Never use a machine until instructed in its operation.
 - b) Use all protective devices connected with the operation of machines (e.g., guards, guides, etc.)
 - c) Police your work area and keep it clean.
 - d) Prevent fires and fire hazards, particularly from smoking.
 - e) Use any protective clothing and/or equipment required in the performance of your job (e.g., Safety belts, hats; eyeglasses; hand and foot protectors).
 - f) Knowledge of first aid procedures (where to get it).
5. Employee suggestions are welcome as our safety program cannot work without your wholehearted cooperation. Suggestions can be submitted to any member of the Safety Committee.



CHECKLIST OF OFFICE HAZARDS

Tripping and Falling Hazards

Unsafe Practices

- a. Running
b. Tilting chairs, etc.
c. Swivel chair adjustment
d. Stairways
Running
Crowding
Not using handrails
e. Unsafe use of ladders
Rolling and trolley type
f. Broken glass

Unsafe Conditions

- a. Floors
Water, oil, soap, etc.
Highly polished surfaces
Torn or loose coverings
Ragged or splintered
b. Stairways
Poorly lighted
Slippery treads
Inadequate hand rails
c. Differences in floor elevation
d. Projecting outlets
Power
Telephone
e. Extension cords on floor
f. Unsafe ladders
g. Building entrances

Falling Objects

Unsafe Practices

- a. Overloading file cabinets
b. Over-crowding desktops
c. Card files on desks
d. Dropping scissors, pens, etc.

Collision Hazards

Unsafe Practices

- a. Running
In aisles and corridors
Through stairway doors
b. Using revolving doors
Too high speed
Crowding
c. Reading while walking

Unsafe Conditions

- a. Two way traffic
Not separated
b. Transparent, unlettered
Doors
c. Solid swinging doors
d. Partly open doors
e. Self-closing doors
f. Aisle obstructions
Riser plugs-radiator
Valves pencil sharpeners, etc.
Extra-long file cabinets
Open desk and file drawers
g. Broken glass desk tops
h. Defective metal waste baskets

Fire Hazards

Unsafe Practices

- a. Matches in desk drawers
b. Discarding cigarette stubs
c. Burnt matches in waste paper basket
d. Fire extinguishers
Not identified by number
Poor inspection schedule
e. Insufficient fire drills

Unsafe Conditions

- a. Insecure file cabinets
b. Insecure lockers, shelves
c. Insecure ceiling fixtures
Lighting fixtures, etc.
Plaster
d. Waste paper on floors, etc.
e. Unsafe storage of flammables
f. Exposed oily rags, etc.
g. Fire extinguishers
Too few in number
Wrong type
Not well located
h. Defective fire hose



Miscellaneous Hazards

Unsafe Practices

- a. No rest periods _____
- b. Horseplay _____
- c. Insufficient first-aid service _____
- d. Extension cords _____
 Placed on steam pipes _____
 Supported by metal hooks _____
- e. Off-the-job safety _____
- f. No inspection _____
- g. Lack of education _____

Unsafe Conditions

- a. Working space _____
 Inadequate individual space _____
 Desks, tables, poorly arranged _____
 Aisles too narrow _____
- b. Poor illumination _____
- c. Unsuitable furniture _____
- d. Electric fans _____
 Improperly installed _____
 Inadequately guarded _____
- e. Poor housekeeping _____
- f. Poor ventilation _____
- g. Exposed steam pipes _____
- h. Exits not well marked _____
- i. Unsafe floors _____

ATTACHMENT G

MISSION ASSURANCE

PLAN

NNG05CA99C



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APPENDIX F

METS MISSION ASSURANCE PLAN

RFP-36449-GCR

July 9, 2004



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APPENDIX F. METS MISSION ASSURANCE PLAN

1. PLAN OVERVIEW

This plan provides the methods, techniques, and management structure that SGT will use for implementing the METS Mission Assurance Program to assure a totally compliant management and verification system. This plan has been developed to document our approach and understanding of the SOW as well as the provisions contained within referenced documents. SGT as the prime contractor will provide the overall management of Mission Assurance, interfacing with METS Team members and the GSFC thereby ensuring the necessary flow down of individual task requirements. The Mission Assurance and Safety (MA&S) Officer will develop an audit program to ensure compliance to contractual requirements and the provisions of this document. The results of each audit will be fully documented and used as part of our continuing improvement process.

It is anticipated that this plan (or portions thereof), other NASA and MIL specifications, or product-unique requirements will be referenced within each task as applicable for implementation. These provisions will be delegated to Team members and subcontractors and incorporated into work authorizations or procurement documents.

1.1 MISSION ASSURANCE MANAGEMENT. A Mission Assurance Quality Management System established in accordance with the provisions of ISO 9001, will be implemented and maintained by SGT and each Team Member during all periods of performance. Each quality system will be documented by management-approved procedures and policies, periodically evaluated, and the results used for continuous improvement. Attachment 1 to this plan provides a cross-reference of established quality assurance procedures, indexed to ISO 9001 provisions.

The MA&S Officer is responsible for implementation of this plan. Quality Reviews will be held quarterly with the designated QA interface from each Team Member's facility. The GSFC Mission Assurance Representative will be invited to participate in each review and will be provided with meeting minutes and other associated output. Each Team Member's Quality organization will provide direct, unimpeded access to upper management, prompt resolution of differences, and closed-loop corrective action and feedback of information.

1.2 PROJECT LIFE CYCLE. The project lifecycle can be defined in two different ways. The first defines the set of project phases as: Formulation, Approval, and Implementation. The second definition is the more familiar engineering phases: Pre-phase A (Advanced Study), Phase A (Preliminary Analysis), Phase B (Preliminary Design), Phase C (Design), Phase D (Development), and Phase E/F (Operations/Disposal). These phases and terminology are described by the NASA Systems Engineering Handbook (SP- 6105) as well as SGT Management System Document MSI.9.4. Each systems engineering phase consists of functions and a workflow which produce the products needed for completion of the phase. The mission review is the validating event for the phase and results in a revised mission baseline. The Project Life Cycle is reflected in Exhibit 1.

The lifecycle accommodates the objective of systems engineering by considering implementation alternatives in Phase A, completing a preliminary design and validating that the right system has been designed in Phase B, performing a detailed design and verifying that the system is designed correctly in Phase C, building and verifying the system in Phase D, and operating and disposing it in Phases E and F. This Mission Assurance Plan covers all activities defined in the project life cycle.



2. QUALITY MANAGEMENT SYSTEM

SGT will provide the first-level mission assurance management. Team members will implement the Mission Assurance Plan through their respective Quality Management Systems. Within each system key personnel will be selected based upon past relevant experience or associated capabilities. Certifications, specialized training, and periodic retraining are part of the selection process.

2.1 DESIGN ASSURANCE. Design assurance factors are incorporated into each Team Member's process starting at the initial concept and continuing through design maturity/release for fabrication. Disciplines associated with the design process such as Reliability, Test, Parts Engineering, and Quality Assurance provide inputs and guidance during the development phase to ensure that mission and specific program parameters are assessed and incorporated. A brief description of this process and interface is as follows:

- a. Reliability – Maintainability and Servicing Provisions
 - Identify redundancy, part limitations, and alternatives.
 - Identify analysis requirements and techniques.
 - Use analyses and verification guidelines.
- b. Test – Testability
 - Establish test parameters, procedures, and equipment.
 - Identify hazardous conditions and personnel safety constraints.
- c. Parts – Utilization of Standard vs. Nonstandard EEE Parts
 - Establish traceability controls and procurement guidelines.
 - Identify long lead items, program schedule constraints, and workarounds.
- d. Quality
 - Perform documentation/drawing reviews.
 - Verify/enter mission assurance and program-unique requirements.
 - Identify special inspection techniques and acceptance criteria.
- e. Materials
 - Verify material/process selection per program standards.
 - Establish material test programs and demonstrations.
 - Identify special handling, cleanliness, and processing constraints.

2.2 PURCHASED ITEM CONTROLS. All Team members will conform to the requirements of this plan. The requirements may be implemented by use of the Team members' internal procedures that are equivalent in content and results. Quality assurance personnel will perform reviews of each procurement document to ensure the proper programmatic flowdown provisions.

Subcontractors, suppliers, and vendors are required to have a demonstrated Quality Assurance System that will provide acceptable products. In the event a subcontractor, supplier, or vendor is unknown or does not have a history for providing quality products, a capability survey will be conducted to determine acceptability prior to initiating procurement. Receiving inspection results will be tabulated for each supplier and used to maintain a system for periodically rating performance characteristics. Supplier ratings will be used during the selection process to select only



those suppliers that maintain acceptable margins. Suppliers that do not maintain acceptable margins will be required to provide corrective measures or are removed as procurement sources.

2.3 INSPECTION SYSTEM. Each contractor involved in providing METS products is required to maintain an inspection system commencing upon receipt of products and continuing through end-item delivery. The system will provide early detection of unacceptable conditions and enable prompt resolution/corrective measures to achieve an acceptable condition.

Receiving inspection consists of performance measurements, mechanical measurements, raw material identification, sampling techniques, physical testing, and verification of data/document content. EEE parts, critical mechanical parts, process materials, raw stock, and other critical items will be entered into the appropriate traceability systems and logs. Specific processing procedures are established to assess quality levels of each lot or batch received.

In-process inspections will be performed at predetermined mandatory inspection points within the product flow. Each inspection established will be capable of validating the processing that has occurred since the previous inspection. Special processes such as adhesive bonding, coatings, welding, and cleanliness controls will be applied and verified as specified within engineering drawings and process specifications. The assembly process will be documented, fully accounting for each operation that occurs, to maintain operator and material traceability. Acceptance criteria used during in-process inspections such as engineering drawings, workmanship standards, process specifications, and ESD processing/handling specifications, will be under formal configuration control maintained within the MA&S Office.

2.4 NON-CONFORMING MATERIAL CONTROL. Materials determined to be nonconforming to stated program requirements will be immediately identified and segregated for disposition. Each Team Member currently maintains a closed-loop Material Review Procedure to disposition nonconforming material and establish corrective actions to prevent future recurrence of like conditions. We assume that GSFC will grant Material Review Board (MRB) privilege to each Team member as applicable after submission of appropriate documentation and procedures defining the methods and process to be followed. A METS MRB will be established by selection of cognizant engineering and quality assurance personnel. Other disciplines such as parts engineering, reliability, safety, production, and program management may be included to provide additional expertise during the evaluation and disposition of nonconformances.

Nonconformances will be initially submitted to preliminary review and dispositioned as follows:

- Scrapped because the item can not be used for its intended purpose and rework/repair options are not economically feasible.
- Rework to meet all requirements and conform to applicable standards and drawings.
- Returned to the supplier for rework or replacement.
- Repaired using a previously approved standard repair process.
- Referred to MRB when the previous dispositions do not apply.

Nonconformances not dispositioned by preliminary review, normally critical and major conditions, are referred to the MRB for processing and disposition. In addition to scrap, rework, standard repair, or return to supplier, the MRB may make the following dispositions:

- Repair by non-standard repair techniques developed and approved by the full MRB.
- Use as is because the condition will not adversely affect the products application.



- Request major waiver due to programmatic or other constraints.

2.5 PERFORMANCE TESTING. A series of acceptance tests are required on each end item to verify design and functional conformance. Testing may begin with functional verifications of assemblies and continue through performance and environmental exposure at the component or box level. Hardware is then integrated and tested at the subsystem and spacecraft level. Testing includes the spacecraft level environmental test program as well as end-to-end testing of all segments of the mission. System engineering will be responsible for reviewing component level test plans. They will be responsible for developing the subsystem, spacecraft, and mission integration plans, test plans, and validation plans. These plans will include the test configurations, operational modes, test equipment, requirements for verification, performance characteristics to be attained, test parameters, environmental parameters, test facilities, test flow, and necessary procedures.

Each test will be conducted as specified within formally released acceptance or system test procedures containing operational methodology, support equipment, processing constraints, and acceptance criteria. Pre-test and post-test reviews will be conducted prior to test initiation, and following completion of test sequences, using the following guidelines:

a. Pre-test reviews or Test Readiness Reviews (TRRs), determine the test article's readiness for test, assessing the availability of personnel to complete the test cycle, availability of facilities, procedural documentation, and environmental and special test equipment.

b. Post-test reviews or Acceptance Reviews (ARs) provide assurance the test was completed in the prescribed manner, performance requirements have been properly verified, deviations or failures are properly documented, resultant data is complete and retrievable, and any post-test equipment operations such as cleaning and controlled storage/handling constraints are completed.

2.6 FAILURE AND ANOMALY REPORTING AND ANALYSIS. Failure reporting will be initiated on spaceflight equipment either at the first application of power, the first physical actuation of mechanical assemblies, or another agreed-upon test baseline period. A closed-loop system will be maintained throughout the entire test phase and will provide the ability to document, track, report, and disposition each condition as it occurs. Internal processing, initiated upon detecting an anomaly, requires that the activity be halted; the safety of the component, system, personnel, and facilities be evaluated prior to changing the existing test configuration; and a failure report initiated with all pertinent information documented. If safety concerns so warrant, the item/system under test will be immediately placed into a safe configuration.

The failure analysis process will be determined by a Failure Review Board (FRB) comprised of mission/quality assurance, systems engineering, design engineering, program management and GSFC, and other technical disciplines as necessary. The FRB will also meet as significant data is obtained to review progress and determine additional steps to be taken. As part of the failure resolution process, analyses may be performed to determine if over-stress or part degradation may have occurred, requiring additional correction to the item. All troubleshooting, retest, or other evaluative or analytical processes will be approved in advance by the FRB and will be fully documented indicating the actions taken and the results.

Completed reports, including all referenced documentation, will be made available to GSFC for review/approval. Reports will be cataloged and maintained for historical records, available for review upon request.



2.7 METROLOGY SYSTEM. Each Team Member will maintain a Calibration, Certification, and Recall system compliant with the requirements of ISO 17025, "General Requirements for the Competence of Testing and Calibration Laboratories." Traceable standards and documented results are required to maintain a historical record of each equipment item processed through periodic calibration and subsequent adjustments. Scheduling of test equipment recalls may be modified to account for adjustment frequency or detection of excessive deviations.

In the event equipment undergoing calibration exhibits out-of-tolerance conditions or other errors, an immediate "alert" will be provided to each previous user indicating the out-of-tolerance condition and its potential effects. The user will determine if re-test or re-evaluation of the test results is required. When the verification of flight hardware or equipment that interfaces with flight hardware is affected, a failure report will be initiated and submitted to the failure review board for disposition and resolution.

Special test equipment that provides a functional or physical interface with the flight equipment will be documented by engineering drawings and associated supporting data released and controlled within the CM system. Upon completion of fabrication, special test equipment will be packaged in tamper-proof enclosures, and "certified" for use by independent test using formally released procedures.

2.8 CONTINUOUS IMPROVEMENT METRICS. The SGT Team is committed to continuously improve the effectiveness of our Quality Management System and the processes needed to deliver products to customers. SGT's quality policy is communicated throughout the organization. SGT strives to ensure that the policy is understood by all employees.

A series of process performance measurement and management evaluations are used to continuously monitor the scope of operations and the organization's ability to perform within prescribed acceptable limits. In order to ensure a positive trend of continuous improvement, SGT establishes quality objectives, and measures performance trends using management review, internal (trained auditors) and external (RAB-approved auditing organizations) audit results, analysis of data, and a rigorous corrective and preventive action process. A key metric used by SGT to measure the effectiveness and applicability of our QMS is customer feedback via task evaluations (award fee scores) and customer interface meetings.

3. SYSTEM SAFETY

Management of the safety program is the responsibility of the MA&S Officer. He will assign safety personnel who will support individual task assignments, perform analyses and prepare deliverable documentation. The system safety program will be implemented on flight systems, ground systems, software implementation and design, and support services, as applicable within individual tasks. A major consideration of the safety program will be to identify and control potential hazards during design, fabrication, integration, test, transportation and handling, launch processing, post-launch operations, and End-of-Life (EOL) disposal. The safety program will remain in effect for the duration of this contract.

3.1 SAFETY REQUIREMENTS DOCUMENTATION. Safety requirements will be extracted from the following documents, as required for individual tasks (the latest revision will be used unless otherwise specified):

- a. STS Missions
 - NSTS 1700.7B.



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- NSTS ISS 18798.
 - NSTS ISS 13830.
 - KHB 1700.7.
 - JSC 26943.
 - 2.45 SPW S-100/KHB 1700.7B.
 - KHB 1710.2.
 - NSTS 14046.
 - NHB 1700.1.
- b. ELV Missions
- EWR 127-1.
 - KHB 1710.2.
 - NHB 1700.1.
- c. WFF Missions
- RMS-93.
- d. GSFC Onsite Operations
- 5405-48-98, Mechanical Systems Center Safety Manual.
 - NASA NPG 8715.3; NASA Safety Manual.
 - GHB 1700.1, Goddard Space Flight Center, Health and Safety Program.

3.2 SAFETY REQUIREMENTS IMPLEMENTATION. The MA&S Officer will review all task statements of work to identify safety issues. He will assign the relevant resources to ensure that the task's safety issues are addressed, as well as review the Task Plan to verify that the appropriate safety resources have been provided. The MA&S Officer will periodically review each task to ensure that the safety needs of the task are being met. Safety personnel will identify and mitigate any potential safety hazards or conditions by providing operational constraints and/or design recommendations throughout the life cycle of the project. All safety issues will be tracked throughout the mission. All trends in safety data will be analyzed and, as necessary, corrective action identified and recommended to the task lead.

3.3 SAFETY CONSTRAINTS. Test procedures, operations documents, and inspection verification documents will provide specific personnel and equipment safety constraints when applicable to the activity. Check lists, test data sheets, and inspection verification records will be used to assure total compliance with each listed requirement. Launch site safety requirements, incorporated in integration and test documentation for use at the launch site, will be coordinated with the NASA facility safety engineering representative.

4. RELIABILITY AND MAINTAINABILITY PROGRAM

The SGT Team will maintain a reliability program, provide analyses, and provide deliverable documentation. Reliability engineering will work closely with systems engineering to determine, analyze, and quantify the mission environments to establish requirements and a margin philosophy for system design. Success of the reliability program will be assured by the integration of reliability requirements into the front end of the design phase. Upfront design analyses will evaluate the design in terms of: mission environments as applied to the system and



components, part application, material selection, stress ratios, and derating. Critical factors incorporated in the reliability program and tailored specifically to each task are:

- Risk assessment to manage and identify program risk.
- Identify single point failures and mission/program impact.
- Validate redundancy and alternative workarounds.
- Part selection and stress analysis.
- Establishment of limited life applications and precautions.
- Identification of test parameters to ensure reliability requirements/margins are met.
- Review of test data for trends or unexpected results.
- Selection of analyses and design parameters to verify mission/program requirements.
- Maintainability – verification of assembly and part replacement characteristics.

4.1 RELIABILITY ANALYSES. Reliability analyses are used to ensure the design meets parametric requirements, meets EOL requirements, has superior reliability, and a high probability of success. These analyses begin early in the design phase and are updated as the design matures. The results of these analyses are presented in preliminary format at Preliminary Design Review (PDR) and in final format at Critical Design Review (CDR). Subcontractors providing functional assemblies are subjected to the same analysis requirements as in-house designs. The requirements for those subcontractor analyses are invoked in procurement documents and evaluated by reliability personnel throughout the design process and prior to delivery. The following are examples of the types of analyses to be performed.

a. Failure Modes Effects Analysis. Failure Modes Effects Analysis (FMEA) is performed on a functional level at the unit's interface level to identify critical items, categorize failure mode severity levels, and identify alternate modes of operation, single point failures, and degraded modes of operation. The Critical Item List (CIL) provides a list of critical items which require special attention of design, operations, and test personnel during development, handling, and use of the item.

b. Fault Tree Analysis. Fault Tree Analysis (FTA) is used to determine the combinations of possible occurrences in a system, which can result in an undesirable outcome. These analyses identify possible system reliability or safety problems at design time, assess system reliability or safety during operation, improve understanding of the system, identify components that may need testing or more rigorous scrutiny, and identify root causes of equipment failures.

c. Probabilistic Risk Assessment. Probabilistic Risk Assessment quantifies the likelihood of event sequences and their consequences in order to measure the risk inherent in the design and operation of a system. An assessment starts with a failure mode and identifies all credible failure mechanisms and associated consequences. It will take into account any combination of hardware/software/environmental/human error or other failure mechanisms. This data is then analyzed using models and/or numerical methods to determine the probability of failure and potential impact to the mission. Probabilistic Risk Assessment is used to:

- Address potential or actual failures and degraded modes of operation to determine mission-limiting elements.
- Evaluate alternative design concepts, redundancy and cross-strapping approaches, and part substitutions.



- Evaluate the impact of proposed engineering changes and waiver requests on reliability.
 - Assist in evaluating the ability of the design to achieve the mission life requirement.
- d. Parts Stress Analysis. Parts stress analysis is performed on a circuit design to ensure that the parts in that design are used in a manner consistent with the part design parameters. Parameters such as temperature (junction, case), voltage, power, and current are evaluated for each part in its application to ensure circuit operation under all operational conditions. The analysis is initiated during circuit design and the parts selection process to help verify that proper application and derating parameters are in accordance with the established program environmental, and reliability requirements.
- e. Worst Case Analysis. Worst case analysis is performed to verify that the variations in part parameter values due to effects such as temperature, aging, radiation, or duty cycle over the life of the mission can be tolerated without causing the design to be out of tolerance or not meet its requirements at mission EOL. The analysis can consider all parameters set at worst case environmental stresses for the operation or parameter being evaluated as a conservative approach or can apply statistical analysis such as Root Sum Square (RSS) methods to more accurately assess the variation in these parameters.
- f. Test Data Analysis. Systems Engineering and Quality Assurance will verify the collection of significant performance data during testing. Each test procedure will be designed to establish baseline performance of the test article and the repeatability of critical performance for all performance modes, including exposure to program environmental conditions. Trend analysis will remain ongoing during the full environmental and performance test cycle to identify and characterize any detected parametric shifts or performance degradation. Upon conclusion of the test program, engineering will review the complete data output, trend data, material review actions, and anomaly/failure reports for patterns that could impact mission or program requirements.

4.2 MAINTAINABILITY. Maintainability analyses are performed as part of the reliability program to the extent required by the end item's application or specific maintenance requirements. When required, appropriate data will be cataloged and used to support demonstrations and walkthroughs of maintenance conditions or techniques. As a result of the maintainability analyses, inputs will be provided to enhance the spare-parts philosophy and provisioning. Most earth and space science missions will not have maintainability requirements other than shelf life until launch and portability of the ground system, including data analysis tools. Other programs, such as the Hubble Space Telescope maintenance missions, as well as manned missions, will have a large maintainability program.

5. RISK MANAGEMENT

The SGT Team will apply Continuous Risk Management (CRM) to identify, document, analyze, plan for the management of, track, and control risks. Our CRM approach, compliant with NPR 8000.4, is tailored to the METS contract, and our management personnel are trained in CRM principles and their application on the contract.

5.1 RISK MANAGEMENT PROCESS. The SGT Team will evaluate each Request for Task Plan (RTP) for programmatic risk (e.g., safety, technical, cost, schedule, security, export control, and damage to environment). For those identified, the assigned Group Lead or Task Lead will analyze them and develop a plan to mitigate them. The risk(s) and the mitigation plan(s) will be documented in the Task Plan. Once the plan is approved and a Task Order (TO) is issued, the Task Lead will assign a risk owner who becomes responsible for tracking the results of the risk



management plan, inputting data into the Risk Management Database, and, when necessary, advising the Task Lead that the plan requires modification or a backup plan should be implemented.

As a task progresses, task team members will remain alert for new risks. If one is identified, the Task Lead will assign a risk owner who analyzes it and develops a plan to manage it. Once the plan is approved, the risk owner will implement it, track the results, input data into the database, and keep the Task Lead advised of the risk's status. Risk owners will be responsible for monitoring and reporting on the status of their respective risk until the risks are retired or until the associated TOs are completed.

For software, hardware, and/or new technology development TOs, the task team will prepare a formal Risk Management Plan that includes:

- Overview of risk management process.
- Organization, roles, and responsibilities.
- Process details and related procedures, methods, tools, and metrics.
- Schedule, milestones, and allocation of resources for risk management activities.
- Documentation of risk information:
 - Format and data elements that will comprise project risk list.
 - Where and how risk list is maintained and controlled (e.g., Risk Management Database).

5.2 RISK MANAGEMENT TECHNIQUES. The SGT Team will use the standard CRM process of identification, analysis, and planning to manage METS programmatic risks. The following paragraphs describe the techniques applied in each phase of the process.

5.2.1 IDENTIFICATION. SGT Team personnel will use a variety of sources to identify risk, e.g.:

- Expertise and experience of Team members.
- Previous analyses, lessons learned, and historical data.
- System safety and reliability analysis, e.g., hazard analysis, FTA, and FMEA.
- Simulations, test data, and models.
- Evaluation of resources/schedule: review and analysis of required or available resources, and continued monitoring of schedule milestones and risk mitigation/planned action milestones.
- Evaluation of suppliers.
- Evaluation of external factors that affect project risk, e.g., computer security assessments, physical security assessments, human factors performance assessments, and environmental assessments.
- Technology maturity.

5.2.2 ANALYSIS. Once a risk is identified, a risk owner will be assigned and will analyze the risk using one or more of the following methods:

- Individual or group expert judgment.
- Statistical analysis of historical data.
- Uncertainty analysis of cost, performance, and schedule projections.



- Probabilistic Risk Assessment.
- FTA.
- FMEA.
- Comparison to analogous systems.

To conclude the analysis, the risk owner will estimate the risk's likelihood of occurrence and the potential consequence if it occurs. A risk exposure level will be assigned using the scales shown in the Exhibit 2. The owner will also define the timeframe in which action must be taken to avoid the risk and determine when the risk will be retired.

5.2.3 PLANNING/MANAGEMENT. After analyzing the risk, the risk owner will determine the appropriate approach to manage the risk. Four options are available:

a. Mitigate. Risk mitigation consists of eliminating the risk or reducing its likelihood and/or consequence. It can be accomplished through engineering, schedule, or budgetary changes to designs, processes, or procedures; or through alternate paths and approaches.

b. Accept. If the decision is that no further action is appropriate (e.g., cost outweighs benefit), no additional resources are expended to manage the risk and it is treated as a problem that is continually monitored and stashed along with other non-risk related problems. When a risk is accepted, the individual responsible for accepting it includes a signed formal acceptance, complete with rationale for its acceptance, with the TO records. Additionally, acceptance of a high (red) risk requires a documented contingency plan to be implemented if it occurs.

c. Research. When additional planning information is needed to determine the approach to resolving risks, a research plan is developed. This can include the collection and evaluation of additional information on which to base future decisions or, sometimes, to reduce the uncertainty surrounding risk estimates.

d. Monitor. This includes deciding not to take immediate action, but to track, survey, or watch the trends and behavior of risk indicators over time.

6. REQUIREMENTS MANAGEMENT

The SGT Team, in coordination with NASA, will maintain a requirements management program, tailored for each Project. The requirements management program will:

- Ensure that all requirements are identified, captured, and agreed upon.
- Establish a requirements baseline that is capable of evolving with the system design.
- Be capable of assessing the impact of changes to the baseline.
- Ensure that the system continues to meet the requirements throughout the design and system verification phases.
- Allow for communication of the requirements baseline information to all affected groups.

Likelihood of Occurrence Scale						
Level	Rating	Criteria				
5	Very High	Criteria Occurrence is almost certain (80-100% change), and may not be controlled by following existing processes, procedures and plans				

Risk Impact Consequence Scale			
Level	Technical Factor	Cost Factor	Schedule Factor
5	Technical goals cannot be achieved. Loss of critical function or major objective and/or safety cannot be assured.	Cost over-run $\geq 10\%$.	Unachievable key or major program/project milestone. Slip in delivery of major system or subsystem beyond 6 months
4	Significant degradation in technical performance-inability to meet performance requirements within established constraints and/or	$5\% \geq$ Cost overrun $< 10\%$.	4- to 6-month delay of deliverables from milestone schedules.

Likelihood of Occurrence Level	Risk Exposure Level				
	1	2	3	4	5
5	GREEN	YELLOW	RED	RED	RED
4	GREEN	YELLOW	YELLOW	RED	RED
3	GREEN	GREEN	YELLOW	YELLOW	RED
2	GREEN	GREEN	GREEN	YELLOW	YELLOW
1	GREEN	GREEN	GREEN	GREEN	GREEN
Level	1	2	3	4	5

Impact of Risk

Exhibit 2. Risk Analysis Scales



- Assure project plans, activities, and work products are consistent and traceable to the requirements baseline.

Requirements verification and validation is the responsibility of systems engineering and is supported by mission assurance. Requirements will communicate system architecture, system functionality, the system interfaces, and system performance. Verification of a requirement will be performed by examining four key aspects of the requirement to determine its suitability and correctness:

- Necessity: The first test is to determine if there is a real need for the requirement. If there is no need, then it should be eliminated as a requirement. If, however, there is a desire to have a capability but the system does not have a specific need for it, it can be documented as a design goal.
- Verifiability: A requirement must be verifiable. It can be verified in one of five different ways; through Analysis, Inspection, Demonstration, Similarity, or Test. The requirements should be able to be defined in terms of detailed pass / fail criteria.
- Attainability: The goal of the requirement must be attainable within the context and constraints of the system. A requirement may be unattainable due to technical, cost, schedule, or practicality reasons.
- Conciseness: The requirement must be clear, concise, easy to understand, and unambiguous. It should be consistent with other requirements and it should guide the engineers in the design of the system, not constrain or direct them.

The purpose of requirements validation is to ensure that all requirements and interfaces are properly defined, that all requirements are consistent with the performance objectives of the system, that all requirements are traceable up to a system level requirement or performance objective, and that all requirements are traceable down to a design or design element. Requirements will be validated to make sure they: are consistent with system performance objectives; are consistent with system interfaces; define the system and stakeholder needs; and are agreed upon by all stakeholders.

During the requirements development phase of a project, requirements will be evaluated by engineering and quality assurance to establish a strong requirements baseline. Once the baseline is established, requirements reviews will be conducted by the Configuration Change Board (CCB) to assess all requirement modifications and the effect of CCB decisions on the existing baseline.

7. SOFTWARE ASSURANCE

For projects requiring software development, SGT Team members will implement a project-specific Software Management Plan (SMP). The SMP includes planning of management, assurance, and development for all software lifecycle phases, including sustaining engineering. The SMP is the top-level document that complements other documents, for example, Software Quality Assurance (SQA) Plan, Software Configuration Management (SCM) Plan, Software Development Plan (SDP), Software Test Plan (STP), and Risk Management (RM) Plan. Small projects may choose to incorporate their SQA, SCM, SDP, STP and RM, as well as technical reviews and other plans and processes as part of their SMP. The SQA and SCM Plans are discussed in this section. RM and Technical Reviews are discussed in Sections 5 and 10 of this MAP, respectively.



7.1 SOFTWARE QUALITY ASSURANCE. The Software Quality Assurance (SQA) function is responsible for:

- Ensuring that the project follows its documented processes.
- Identifying artifacts that demonstrate compliance with established plans, standards, and procedures.
- Identifying opportunities for software process improvement within and across the projects.

The SQA Plan establishes the SQA activities performed throughout the life cycle of a software project. SQA personnel develop the SQA Plan and perform the tasks specified in the Plan. A single individual provides the primary interface with the Project Software Lead, the Program Manager, the customer's SQA organization, and any subcontractors' SQA organization. Activities performed by SQA personnel include:

a. Audits of Software Activities. SQA personnel perform audits of software processes in order to verify the project's compliance with plans, standards, and procedures. Checklists are developed prior to the activity audit using the relevant activity documents. The checklists are distributed to the audit participants prior to the audit. The results of the audits are documented in Software Quality Assurance Reports and in the checklists.

Examples of processes that are generally audited are: Requirements Management, Planning and Tracking, Configuration Management, Quality Assurance, Software Development, and Testing. Examples of products that are audited are the SMP, Software Design Document, Software Code, and Software Test Report. Formal reviews (refer to Section 10, Technical Reviews) may be needed to evaluate major software components. For smaller projects, peer reviews will serve the same purpose.

b. Software Development Process Audits. The specific software engineering activities that are evaluated include, but are not limited to:

- Software development methods.
- Requirements traceability.
- Design and coding standards.
- Software development folders.
- Software configuration management.

c. Evaluation of Software Documentation. To ensure compliance with provisions of the contract and governing standards, each deliverable software document undergoes review by appropriate management, engineering, and quality assurance personnel. SQAs will evaluate each document against the quality evaluation criteria defined and against any checklists used on the project.

d. SQA Reports. The Software Quality Assurance Report (SQAR) is designed to communicate SQA participation in quality-related activities. All SQA evaluation activities, including audits, reviews, inspections, etc., are documented via the SQAR. Although the format of the report varies somewhat from activity to activity, each report consistently provides the following information:

- A unique SQAR number.
- Identification and/or description of event or activity.
- Date of event or activity.



- Description of problems identified (if applicable).
- Corrective action if required.
- Persons responsible for that action if required.
- Resolution dates if required.
- Evidence of tracking the corrective action through resolution if required.

The findings from individual quality assurance activities are reported to all affected parties and to project management. Audit results and other SQA-related data are maintained by the SQA organization. These records are subject to audit and review and are kept in a manner that allows easy access for such purposes.

SQA personnel report the results of audits to the project management and provide process improvement recommendations. Action items are documented in a tracking system where they are monitored until closed. Problems identified in the products or processes evaluated are documented and handled according to the Software Corrective Action Process and Problem/Change Report sections of the SMP.

7.2 SOFTWARE CONFIGURATION MANAGEMENT. The goals of SCM are:

- Manage the evolution of the software product to make the entire software life cycle process both visible and traceable.
- Ensure that correct high quality software products are produced.

The SCM Plan identifies the software, documents, datasets, and other work products that need to be maintained under configuration control. Software is maintained, built, integrated, delivered, and changed under strict configuration control. Software changes will be handled as outlined in the Problem/Change Report sections of the SMP. For changes to the software that may impact schedule and/or cost, or that may affect end-product functionality or performance, decisions will be made by a CCB consisting of the various stakeholders. Summary statistics on outstanding change requests will be provided to the project management periodically.

SCM personnel have primary responsibility for developing the SCM plan and performing the tasks as specified in the Plan. They establish and maintain developmental configuration baselines and serve as the interface among the software development personnel, CM, and SQA representatives. Responsibilities include:

a. Configuration Identification. Assign or obtain unique identifications for project-related developmental software configuration items (e.g., documentation, builds, program configuration items, Program Trouble Reports, etc.).

b. Software Libraries. Establish and maintain software libraries for storage and controlled access to software elements and associated documentation (deliverable and non-deliverable). This includes referenced technical data, documentation developed as part of the software development, forms, procedures, and status accounting records for the project.

c. Change Control. Perform Change Control for the project in accordance with SCM process. Serve as coordinator and recorder for the SCCB.

d. Status Accounting. Establish and maintain configuration status accounting records.

e. Audits of Product Baselines. Audit configuration baselines to ensure that baselines conform to the definitions provided for them by the SCCB.



f. Release and Distribution of Software Work Products. Perform developmental baseline builds at the direction of the SCCB.

8. GROUND DATA SYSTEM

Ground Data System (GDS) mission assurance requirements are generally the same as required for flight systems. This section provides a description of the specific applicability of the overall METS Mission Assurance Plan with regard to the GDS.

a. Section 2, Quality Management System, is completely applicable to the GDS MAP, including 2.1, Design Assurance; 2.2, Purchased Item Control; 2.3, Inspection System; and 2.4, Non-conforming Material Control.

b. Section 3, Systems Safety, is tailored for GDS components that are software and deemed safety critical. These components must be implemented in accordance with NASA-STD-8719.13, NASA Software Safety Standard. For any GDS components identified as safety critical, the developer will conduct a safety program in compliance with the NASA Safety Manual, NPG-STD-8715.3.

c. Section 4, Reliability and Maintaining Program, is tailored to add the following: The developer is required to certify that the GDS is installed and ready for use prior to being turned over to operations for acceptance test. Specific GDS maintainability assurance requirements include GDS developer to define, measure, and control maintainability status in all life cycle phases. Also the developer will develop maintainability predictions for GDS and its components.

d. Section 7, Software Assurance, is tailored to add the following requirement: If using existing software (GFE, COTS, other purchased) on GDS, the developer will ensure that the software meets appropriate requirements. Also, any significant modification to the existing software will be in accordance with the developer's QMS.

e. Section 5, Risk Management; Section 6, Requirements Management; Section 9, System Verification and Validation; Section 10, Technical Reviews; and Section 11, Workmanship Standards are fully applicable to GDS.

f. Section 12, Parts, Materials, and Processes; Section 13, Contamination Control; Section 14, Electrostatic Discharge Controls are flight-hardware specific and may only have limited applicability to GDS.

The GDS CM Plan identifies the hardware, software, algorithms, documents, datasets, and other work products that need to be maintained under configuration control. The CM process must be designed such that it is capable of identifying the ground data system configuration associated with the processing of any dataset by the system.

9. SYSTEM VERIFICATION AND VALIDATION

The SGT Team, in coordination with NASA, will perform verification and validation activities to ensure that the system performs its intended function(s) in its intended environment. As required by specific TOs, a System Verification and Validation Plan will be produced. The plan will encompass qualification, proto-qualification, and acceptance efforts from the design phase through development, integration, pre-launch, operational, and disposal activities. The plan will identify and define the verification and validation requirements, resources, schedule, test procedures, simulation requirements, and evaluation criteria. All verification and validation test planning will be completed by CDR.



Test reports will be generated for all verification and validation test and evaluation activities. At specified points during and at completion of verification and validation, the results of testing, demonstrations, inspections, and simulations will be analyzed and compared to the expected results and evaluation criteria to determine the degree to which the system meets requirements.

9.1 VERIFICATION. Verification is performed to ensure the system is built correctly. All requirements will be verified at the lowest level possible (component, subsystem, then system.) Verification methods, such as examination, analysis, demonstration, similarity, test, will be selected and documented in the verification and validation plan or a separate verification requirements matrix. A few examples of system verification activities are measurement of component dimensions, software unit or Computer Software Configuration Item (CSCI) testing, pre-ship and post-ship functional testing, and system mass properties determination.

SGT Team members and subcontractors will implement a verification program to prove the design of flight hardware, software, and Ground Support Equipment (GSE). The program will consist of a series of reviews, analyses, and functional/environmental acceptance testing. Documentation for each plan will consist of test plans and test procedures as well as matrix listings of required environmental exposures and sequences. The actual verification process begins at the initiation of design concepts, with inputs from reliability and other assurance disciplines, to establish the unique program and mission guidelines for incorporation into the design process. As the design matures, assurance personnel will perform a series of drawing reviews to verify incorporation of internal standards and program criteria prior to formal documentation release. Reliability, safety, and maintainability analyses are provided in preliminary format at PDR; formal presentation of the final analyses and associated plans is accomplished at CDR.

a. Verification by Analysis. This method consists of those activities used to verify conformance to requirements based upon calculations, modeling, or detailed examination. Where appropriate, analysis will be used to generate analytical solutions required to evaluate algorithms and associated functions. This method may be used to provide postulated data, which will be actual program data. Verification by analysis may be used when it can be determined that rigorous and accurate analysis is possible, that testing is not feasible or cost-effective, that verification by similarity is not applicable, and/or verification by inspection is not adequate.

b. Verification by Demonstration. Demonstration is the verification of observable functionality for specific requirements resulting from the execution of all, or portions of, the system. The system will be exercised in either the operational or simulated environment in which designated stimuli produce known and predictable results. The observable result(s) will have been pre-evaluated and approved by the respective responsible engineer(s) to determine satisfaction to requirements.

c. Verification by Inspection. Inspection is a physical verification of the satisfaction of certain types of system design and performance requirements. It includes direct examination and comparison of basic materials such as software listings and tables or boxes, connectors, and displays.

d. Verification by Similarity. Using this method, verification is accepted based on the verification process of an identical unit that has been verified to equivalent or more stringent standards. This may be used for requirements that are not testable under normal conditions or that require test capabilities that are not readily available.



e. Verification by Test. This method consists of operating all, or portions of, the system in order to collect the necessary data required to verify specific requirements against their parametric performance requirements. Specific parametric values (including environmental parameters) are used to exercise the component/system in order to allow for the performance requirements to be verified under variable conditions. Pass/fail criteria are applied to the various outputs to determine compliance to the requirement.

The test verification program begins with functional testing of the component/system and continues through performance/environmental testing, supported by appropriate analyses. Anomalies detected during testing will be fully documented within the failure reporting system and processed by the failure review board for resolution and determination of design deficiencies. Performance and environmental test procedures will contain the necessary prerequisites for procedural, facility, and personnel constraints, as well as provisions for recording results and acceptable performance limits.

9.2 VALIDATION. The purpose of validation is to ensure the right system is built. System validation will begin as early as practicable in a project lifecycle and continue through system operation. Validation is used to determine that the mission/system objectives can and will be achieved. Prior to starting system validation, the system validation procedures and a validation matrix, cross referencing the validation requirements to the verification and validation plan and/or validation procedures, will be produced and the necessary resources such as test fixtures, tools, software, ground support equipment, and facilities certified/validated. Validation efforts may include structured scenario testing and demonstrations for operational, maintenance, training, and support activity test and evaluation.

10. TECHNICAL REVIEWS

SGT and Team members will implement a comprehensive program of technical reviews required within individual TOs. Each review will be tailored to meet the program requirements and cover all aspects of mission hardware, mission software and software applications, test phases, and operations activity for which SGT is responsible. SGT will establish a team for each review with membership consisting of design and assurance disciplines, GSFC monitoring personnel, and other program/independent personnel whose expertise would enhance the review process.

The SGT Team will conduct, or provide inputs for, each review to assure that the design review information is presented in sufficient detail to afford understanding of hardware and software functions as well as assembly, test, and operational characteristics. Additional inputs, typically provided as inputs to the design review process, are reliability analyses, PMP engineering data, safety, and risk management activities. Prior to each review, SGT Team members will develop and organize material for oral presentation. Copies of presentation materials will be provided at the individual reviews or in advance as determined by the review chairman. SGT will also support any splinter or follow-up meetings that result from the review and monitor the list of action items for completion. Upon completion of the reviews, a set of minutes will be prepared highlighting the review's conduct, resulting conclusions, and action items/recommendations. Typical reviews that may be performed include:

a. System Requirements Review (SRR). Usually conducted prior to initiation of formal design to evaluate design approach, hardware/software application, the operational concept, and system level requirements.



b. System Safety Review (SSR). A recurring review that is performed to provide identification of safety hazards so that appropriate measures may be identified and implemented to eliminate, reduce, or control risk.

c. Software Specification Review (SoSR). Performed at the beginning of the preliminary design to ensure that the software specification is sufficiently mature to support preliminary design efforts. The following items are performed as part of the review, verification that software requirements have been allocated to a CSCI and are traceable to the software specification, verification that a complete set of requirements are developed and allocated to each CSCI, and verification that the software requirements are clear and understandable.

d. Preliminary Design Review (PDR). Conducted to evaluate and provide a thorough review of programmatic and technical requirements prior to actual hardware manufacture and finalization of software. Program/operational constraints, risk factors, and safety provisions are documented for action.

e. Critical Design Review (CDR). Provides final hardware/software design prior to begin of flight item fabrication and software coding. Validates all required reliability analyses, developmental testing, test plans, mass and thermal budgets, program issues, assembly/inspection flow, safety concerns, and other factors that may affect final design and flight item fabrication.

f. Test Readiness Review (TRR). Performed to determine a test article's readiness for test, assessing the availability of personnel to complete the test cycle, availability of facilities, procedural documentation, and environmental and special test equipment.

g. Acceptance Review (AR). Provides assurance that a test or battery of tests was completed in the prescribed manner, performance requirements have been properly verified, deviations or failures are properly documented, resultant data is complete and retrievable, and any post-test equipment operations such as cleaning and controlled storage/handling constraints are completed.

h. Mission Operations Review (MOR). Takes place prior to integration and test of the flight system and ground data system to determine equipment status, interfaces, test, and mission planning.

i. Pre-Environmental Review (PER). Conducted prior to starting the environmental test of the flight equipment to verify readiness of facilities, personnel, and procedures, and identify any constraints for resolution.

j. Pre-Ship Review (PSR). Required prior to shipment of flight hardware to verify completion of required processing and supporting documentation. Review "open" items for closure or subsequent action required.

Additional reviews related to Flight Operations Reviews (FOR) and Launch Readiness Review (LRR) will be supported by the SGT Team by oral and documentation presentations when requested or when applicable within individual task assignments.

11. WORKMANSHIP STANDARDS

Workmanship standards used for fabrication of flight and critical ground support equipment will be in full compliance with NASA/GSFC specifications normally contractually imposed for space systems. Operations and assurance personnel will be certified by formal training programs specific to the disciplines involved by their work assignments. Operator performance will be



continuously monitored and when indicated by results, additional training or recertification will be conducted.

11.1 FLIGHT STANDARDS. Flight workmanship standards are applicable to all operations conducted on spaceflight interfacing hardware. Workmanship standards will conform to the following:

- NASA-STD-8739.1, Conformal Coating and Staking.
- NASA-STD-8739-2, Soldering, Surface Mount Technology.
- NASA-STD-8739.3, Soldering, Manual (Hand).
- NASA-STD-8739.4, Crimping, Wiring, and Harnessing.
- NASA-STD-8739.5, Fiber Optics.

11.2 PRINTED WIRING BOARDS. Printed wiring boards will be designed and fabricated using IPC and GSFC standards. Integrity and quality of each lot or batch of individual boards will be determined by performing the in-process and final coupon testing required within the standards specified for Class 3 products; test results, data, representative coupons, and samples will be in the end-item data package within the program files. Coupon evaluation will be accomplished by a laboratory or manufacturer acceptable to the GSFC. Standards for printed wiring boards are:

- Printed Wiring Board Design
 - IPC-2221.
 - IPC-2222.
 - IPC-2223.
 - IPC D-275.
- Printed Wiring Board Manufacture
 - IPC A-600.
 - IPC-6011.
 - IPC-6012.
 - GSFC/S312-P-003.
 - IPC-6013.
 - IPC-6018.

11.3 GROUND SUPPORT SYSTEMS. Ground systems workmanship standards (non-flight) will be documented in a manner similar to flight standards in that they will be formally released and maintained current. As a minimum, printed wiring boards will be fabricated in accordance with applicable IPC class 2 standards. Assemblies and wiring will be fabricated to meet the Class 2 requirements of J-STD-001 and IPC-A-610; conflicts will be resolved by using the requirements of J-STD-001.

11.4 HANDLING AND ESD PROTECTION. Processing of hardware will be accomplished using procedures and techniques that are designed to afford maximum protection at all times. ESD protective enclosures will be used to house hardware beginning at receiving inspection, continuing through storage, during all phases of fabrication, and handling during testing. ESD-grounded work stations are required, without exception, and require periodic certification and



maintenance. Cleanliness of the flight hardware and interfacing ground system will be maintained by using cleanrooms, controlled work areas, and personnel protective clothing. Cleaning techniques and materials will be documented in special process specifications which have prior approval for compatibility with the flight hardware.

12. PARTS, MATERIALS, AND PROCESSES

The SGT Team will participate as a member of Parts, Materials, and Processes (PMP) Control Boards (PMPCB) to represent the interests of specific TOs and, as appropriate, establish a PMPCB for offsite product development. In the latter case, the MA&S Officer will serve as the board chairman and in that capacity will establish the operational philosophy and meeting agendas/output. PMP program requirements will normally be included within individual TOs as they are assigned; in the absence of those requirements, the PMPCB chairman will interface with the GSFC to establish the necessary guidelines.

12.1 PMPCB RESPONSIBILITIES. The PMPCB will operate under a basic set of responsibilities set forth by GSFC. Meetings, decisions, action items, and areas of disagreement will be documented in published minutes within 5 working days of each occurrence. Established responsibilities for the PMPCB are:

- Establish and document formal procedures.
- Maintain the approved PMP list.
- Provide design guidelines for selection and use of approved PMP.
- Ensure proper derating of EEE parts.
- Verify adequate design margin of mechanical parts.
- Establish DPA policies and procedures; disposition DPA problems and anomalies.
- Review DPA results, MRB actions, failure analyses, and other PMP concerns.
- Identify long lead items and related procurement problems.
- Evaluate/approve laboratories performing analysis and or screening operations.

12.2 EEE PARTS SELECTION. Parts will be selected and processed in accordance with established requirements contained in GSFC 311-INST-001, Instructions for EEE Parts Selection, Screening and Qualification and the NASA Parts Selection List (NPSL). The appropriate parts quality level defined in GSFC 311-INST-001 will be determined by the individual task assignments based on mission application, system redundancy, or other critical factors determined by the PMPCB. Parts selected from the GSFC PPL, MIL-STD-975, NASA Standard Electrical, Electronic, and Electromechanical Parts List, and the NASA Parts Selection List (Level 1 and 2) are considered suitable for grade 2 applications; however, it is the responsibility of the PMPCB to identify exceptions due to failure history, application risk, mission environment, or other conditions which may preclude use. Custom devices such as multichip modules, stacked memories, ASICs, etc. planned for use will be subjected to individual design reviews and monitored by the PMPCB during development, procurement, and application. The design reviews will as a minimum address derating of elements, reliability analyses, assembly techniques and materials, and thermal management. All parts will be selected to meet their radiation hardness levels in the predicted mission environment. Selection criteria for the radiation environment will consist of two separate effects, those of total ionizing dose and single event effects.



12.3 PROCUREMENT CONTROLS. The MA&S Officer or designee will review and approve each purchase order prior to issue to assure conformance to the applicable TO guidelines and program requirements. High reliability, hermetically sealed part requirements will be made from QPL/QML or other approved manufacturers where possible. When parts are procured to the manufacturer's in-house specifications, the attribute screening data package will also be procured. Problems that are encountered during procurement will be documented and resolved by the PMPCB. Suppliers, vendors, laboratories, and manufacturers are subject to initial capability surveys and periodic audit to ensure compliance to requirements specified within the procurement order.

12.4 PMP TRACEABILITY. Traceability will be maintained for all parts, materials, and special process components to allow for rapid identification of those actual items incorporated within the flight hardware and critical ground support equipment during fabrication and assembly operations. At the onset of fabrication/assembly operations, each item is assigned a specific flow document that contains provisions for logging required traceability entries. As lower level subassemblies are installed into next higher levels, the traceability listings are incorporated into an "equipment log" at the component or "black box" level. Traceability methods proposed for use are:

- EEE Parts. The manufacturer, lot date code, purchase order, and serialization when provided will be recorded.
- Printed Circuit Boards. Part number, serial number, lot date (batch) code, and manufacturer.
- Mechanical Parts, Hardware, and Materials. Purchase order number, lot/batch number, expiration date when applicable.

12.5 MATERIALS AND PROCESSES. In order to anticipate material-related problems during development and operation, design guidelines will consider potential problem areas such as radiation effects, thermal cycling, stress corrosion cracking, galvanic corrosion, hydrogen embrittlement, lubricants, contamination of cooled surfaces, composite materials, atomic oxygen, vacuum outgassing, toxic outgassing, flammability, and fracture toughness, as well as the properties required by each material usage and application. Material selection criteria based upon launch application are:

Launch Type	Payload Location	Flammability and Toxic Outgassing	Vacuum Outgassing	Stress Corrosion Cracking
STS	Orbiter Crew Compartment	NASA-STD-6001	No Requirement	MSFC-SPEC-522
STS	Cargo Bay	NSTS 1700.7 Paragraph 209	TML <1.00% CVCM <0.10%	MSFC-SPEC-522
ELV	All	EWR 127-1 Section 3.4.1.2	TML <1.00% CVCM <0.10%	MSFC-SPEC-522

Materials that have a limited useable shelf life will be identified with a start and expiration date. Storage of shelf-life materials will be accomplished in accordance with the manufacturer's recommended environments and conditions. Materials such as rubber seals, tape, uncured polymers, lubricated bearings and paints are also considered to be shelf-life items. The use of materials whose date code has expired requires retesting to demonstrate that the material's properties have not degraded or have been compromised for their intended use. Approval for use of expired materials will be obtained by disposition by the PMPCB and subsequent waiver action.

Material outgassing properties will be evaluated using ASTM E595 and NASA RP 1124 as a guide and individual material outgassing data will be established based on each component's operating guidelines.



12.6 MATERIAL AND PROCESS QUALIFICATION. Materials and processes previously qualified for spaceflight application will be selected when possible. In judging the acceptability of previously approved materials and processes, each will be individually evaluated for:

- Successful use in a prior, but recent space program in which the application environment conditions of use and test were at least as severe as those presently required.
- The part or material design and construction are the same as the previously qualified part/material.
- The part or material is manufactured by the same facility to the same baseline as the previously qualified part or material, and the application does not result in critical stresses or mechanical strain (such as due to thermal mismatch) greater than the previously qualified part or material.

Materials and processes that do not meet the qualification criteria will be processed on GSFC Material Usage Agreements (MUAs) including justification, qualification and test program, and applicable analyses for approval.

12.7 PART OR MATERIAL FAILURES. Under the direction of a previously established FRB, malfunctioning parts or materials are removed and analyzed to establish the exact failure mode by a systematic layer-by-layer examination of internal properties and composition to the extent necessary. Electronic circuits and mechanical components are subjected to analysis to determine if actual/potential overstress requires additional repair or replacement action. The PMPCB will be made aware of all part and material failures and will provide corrective actions to be taken for lot, batch, or application problems. Depending on the corrective action, MRB approval may also be necessary. All failure reports and analyses will be maintained within the program files and made available for approval and review at all times.

12.8 GIDEP ALERTS. SGT Team members participate in the GIDEP industry sharing program. All GIDEP alerts are reviewed to determine their effect on hardware currently being processed by Team members as well as subcontractors and suppliers. The PMPCB will review and disposition all GIDEP alerts related to EEE parts applications and will also issue alerts resulting from defective or unacceptable EEE parts processed. In addition, any NASA alerts and advisories provided will be reviewed and dispositioned. Alert applicability, impact, and corrective actions will be documented and maintained within the project files.

13. CONTAMINATION CONTROL

A contamination control program will be established to meet the sensitivity, allowance, and budget levels specified in the individual task assignments. Appropriate plans and procedures will be provided to describe the program when required. Assembly and test facilities will incorporate the use of controlled access areas, visibly clean workstations, and clean rooms to ensure contamination levels are not exceeded. Personnel involved with fabrication, assembly, handling, and integration of the flight hardware will be required to wear smocks or other cleanroom garments when working around or in its vicinity; test facilities and test personnel will also be required to observe the same cleanliness standards used during assembly.

All hardware will be subject to thermal vacuum bakeout. The parameters of the bakeout such as temperature, duration, and pressure will be individualized dependent upon materials used, the fabrication environment, and the established contamination allowance.



SGT Team

*A Trusted GSFC Team Delivering Mission
Systems, Software, and Enabling Technologies*

14. ELECTROSTATIC DISCHARGE CONTROLS

All flight hardware and critical ground support equipment will be processed observing electrostatic discharge prevention procedures and facilities. Personnel involved in manufacturing, and test of spaceflight hardware and support equipment interfacing with spaceflight hardware, will be certified competent by formal training, and periodic updates as new technology develops. Certified ESD workstations, personnel protection such as wrist straps and antistatic smocks, relative humidity control, and conductive surfaces will be used within the manufacturing and test facilities. The contamination control program will be based on and meet the requirements of specification ANSI/ESD S20.20, including personnel training programs and facility design/maintenance. Flight electronic hardware will be packaged in approved ESD containers when not being actively processed during manufacturer inspection or test.



ATTACHMENT 1. SGT TEAM ISO DOCUMENTATION COMPLIANCE MATRIX

Document Title	ISO 9001:2000	SGT, Inc.	Orbital	NG-STS	RISS
Quality Management System General Requirements	4.0-4.1	QM-1	TSD-QMS 1000	A151	ITSS-QM01
Documentation Requirements	4.2	SGT-001, QM-1, MSP 5, MSI 16.1	TSD-QMS 1000, TSD-MAP 0500, TSD-MAP 1600, TSD-PA 0051	A151, A160, A307, Q101, E221-STS, M306-STS, M603-STS, M620-STS	OSP7.3-01, QSP4.2-01, QSP4.2-02, QSP4.2-04
Management Responsibility & Commitment	5.0-5.1	QM-1	TSD-QMS 1000	Q01	ITS-QM01
Customer Focus	5.2	MSP 3	TSD-QMS 1000, TSD-MAP 0300	C510, C561-STS, E231-STS	QSP7.2-01, QSP7.5-05
Quality Policy	5.3	QM-1	TSD-QMS 1000	Q01	ITS-QM01
Planning	5.4	CMMi-1, MSP 3, MSI 9.2, MSI 9.4	TSD-MAP 0300-001	Q01, Q100, D302	ITSS-QM01, QSP7.5-05, QSP8.4-01, QSP8.4-02, QSP8.4-03, QSP8.5-02, QSP8.5-03, QSP8.5-04
Responsibility, Authority and Communication	5.5	QM-1	TSD-QMS 1000	Org Charts & Job Descriptions, Q101, G202	ITS-QM01
Management Review	5.6	MSP 1, CMMi-1, MSI 9.2, QM-1	TSD-QMS 1000, TSD-MAP0300-001, TSD-MAP 0200	Q101, A160	ITSS-QM01, QSP8.4-01, QSP8.4-02, QSP8.4-03, QSP8.5-02, QSP8.5-03, QSP8.5-04
Resource Management Provision of Resources	6.0-6.1	MSI 9.1	TSD-QMS 1000	Q01	ITSS-QM01
Human Resources	6.2	MSI 9.1, MSP 18	TSD-QMS1000, TSD-MAP 1800	H301, Q301-STS	ITSS-QM01, QSP6.2-01
Infrastructure	6.3	QM-1	TSD-QMS 1000,	M104-STS, M234-BWI, N300 series, M401-BWI	ITS-QM01
Work Environment	6.4	QM-1	TSD-QMS 1000,	K105	ITS-QM01
Planning of Product Realization	7.0-7.1	MSP 3, MSI 9.1, MSI 9.2, MSI 9.4	TSD-MAP 1600	D302, E162-STS, E22115-STS, E22146-STS, E241-STS, E804-STS, E810-STS, E812-STS, E83101-STS, C510	QSP7.5-06, QSP8.2-03, QSP8.2-04, QSP8.3-01
Customer Related Process	7.2	MSP 3, MSI 9.4	TSD-MAP 0300, TSD-MAP 0400	C510, C712, C71202, E162-STS, E22115-STS, E22146-STS, E231-STS, E804-STS, E810-STS, E812-STS, E83101-STS	QSP7.2-01, QSP7.5-05



Document Title	ISO 9001-2000	SGT, Inc	Orbital	NG-STS	RITSS
Design and Development	7.3	MSI 9.4, BD-0, MSP 9, MSI 9.2	TSD-MAP 0400	E162-STS, E812-STS, E836-STS, E840-STS, E20044-STS, E801-STS, E804-STS, E810-STS, E812-STS, E83101-STS	QSP7.3-01, QSP7.5-05, QSP8.5-04
Purchasing	7.4	MSP 6	TSD-MAP 0600	P01, P100, P310-P498, P601-STS, P702, P703	QSP7.4-01
Production & Service Provision	7.5	MSP 7, MSP 8, MSP 9, MSI 9.2	TSD-MAP 0900, TSD-MAP 0700, TSD-MAP 0800	M104-STS, M302-STS, M306-STS, M30603-STS, M44001-STS, M899xx-STS, E-321-STS, C901-C927, E401-STS, P920-STS, S121-STS	QSP7.5-01, QSP7.5-02, QSP7.5-03, QSP7.5-04, QSP7.5-05, QSP7.5-06
Control of Monitoring & Measuring Devices	7.6	MSP 4.11	TSD-MAP 1100	E630-STS	ITSS-QM01
Measurement, Analysis & Improvement	8.0-8.2	MSP 17, OM-1, MSI 9.2	TSD-QMS 1000, TSD-MAP 1700	C561-STS, Q100, A160, M306-STS	QSP8.2-01, QSP8.2-02, QSP8.2-03, QSP8.2-04, QSP8.3-01, QSP8.4-01, QSP8.4-02, QSP8.4-03, QSP8.5-01
Control of Nonconforming Products	8.3	MSP 13	TSD-MAP 1300	M603-STS, M620-STS	QSP8.3-01, QSP8.5-01
Analysis of Data	8.4	MSP 20, MSI 9.2	TSD-MAP 2000	Q100, Q101	QSP8.4-01, QSP8.4-02, QSP8.4-03
Improvement	8.5	MSP 1, MSP 14, CMMi-1, QM-1 MSI 9.2	TSD-QMS 1000, TSD-MAP 1700	Q100, A160, Q601-STS	ITSS-QM01, QSP8.4-01, QSP8.4-02, QSP8.5-01, QSP8.5-02, QSP8.5-03, QSP8.5-04



ATTACHMENT 2. GLOSSARY

Acronym	Definition
AR	Acceptance Review
CCB	Configuration Control Board
CDR	Critical Design Review
CIL	Critical Item List
CM	Configuration Management
COTS	Commercial Off the Shelf
CRM	Continuous Risk Management
CSCI	Computer Software Configuration Item
DPA	Destructive Physical Analysis
EEE	Electrical, Electronic, and Electromechanical
EOL	End of Life
ESD	Electrostatic Discharge
FMEA	Failure Modes Effects Analysis
FOR	Flight Operations Review
FRB	Failure Review Board
FTA	Fault Tree Analysis
GDS	Ground Data System
GFE	Government Furnished Equipment
GIDEP	Government-Industry Data Exchange Program
GSE	Ground Support Equipment
IPC	Institute for Interconnecting and Packaging of Electronic Circuits
LRR	Launch Readiness Review
MA&S	Mission Assurance and Safety
MAP	Mission Assurance Plan
MOR	Mission Operations Review
MRB	Material Review Board
MUA	Material Usage Agreement
NPSL	NASA Parts Selection List
PDR	Preliminary Design Review
PER	Pre-Environmental Review
PMP	Parts, Materials, and Processes
PMPCB	PMP Control Board
PPL	Preferred Parts List
PSR	Pre-Ship Review
QA	Quality Assurance
QML	Qualified Manufacturers' List
QMS	Quality Management System
QPL	Qualified Products List
RAB	Registrar Accreditation Board
RM	Risk Management
RSS	Root Sum Square
RTP	Request for Task Plan
SCCB	Software Configuration Control Board
SCM	Software Configuration Management
SDP	Software Development Plan
SMP	Software Management Plan
SoSR	Software Specification Review
SQA	Software Quality Assurance
SQAR	Software Quality Assurance Report
SRR	System Requirements Review
SSR	System Safety Review
STP	Software Test Plan
TO	Task Order
TRR	Test Readiness Review



SGT, Inc.

Information Technology (IT) Security Plan

for

Multidisciplinary Engineering and Technology Services (METS)

**Contract: NNG05CA99C
NASA/Goddard Space Flight Center
March 4, 2005**

METS Information Technology (IT) Security Plan
NNG05CA99C

**Information Technology (IT) Security Plan for
Multidisciplinary Engineering and Technology Services (METS)**

March 4, 2005

Prepared by:
SGT, Inc.
1616 McCormick Drive
Upper Marlboro, MD 20774

Approved by: _____

Date: March 4, 2005

Program Director, METS

METS Information Technology (IT) Security Plan

NNG05CA99C

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METS Information Technology (IT) Security Plan

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Section 1 -- Introduction and Background

1.1 Purpose

This document describes SGT's Information Technology (IT) Security Plan for performance of the METS effort under GSFC contract NNG05CA99C. It delineates our plan for compliance with the requirements of NFS 1852.204-76 Security Requirements for Unclassified Information Technology Resources (July 2002) and as further defined in NASA Procedures and Guideline (NPG) 2810.1, Security of Information Technology. This plan establishes the procedures and guidelines to be followed by METS personnel in accessing and utilizing computers connected to NASA/GSFC campus networks and/or for all METS managed systems hosting certain NASA sensitive data (as defined by the reference documents).

1.2 Scope

SGT prepared an assessment of the requirements of the referenced NFS Clause and NPG 2810.1 and has determined that all computers connected to NASA networks are/will be provided to METS employees by NASA GSFC. They are (and will continue to be) managed by the Government, with procedures for maintaining secure computing environments covered by the governing GSFC organization IT Security Plan(s) for each. All METS systems maintained by the Contractor will not be connected to NASA networks, nor will they host NASA sensitive data as defined by the referenced IT security requirements (MSN - mission data; BRT - business or restricted technology data; SER - scientific, engineering and research data; or certain ADM - administrative data). Therefore, there are no IT security requirements applicable to these systems. METS personnel will, however, be directly involved in the operation and support of Government systems and are therefore subject to certain IT Security requirements applicable to personnel screening and individual responsibilities, including rules of behavior. This plan sets forth the responsibilities, procedures and training activities SGT will implement to ensure personnel assigned under METS consistently support the Government's objectives for maintaining a secure computing environment.

The results of our analysis of the applicable IT Security documents are contained in Appendix A of this plan. To summarize that analysis, SGT has agreed to meet all of applicable requirements of NFS 1852.204-76. Specifically,

- SGT will comply with the GSFC procedures for the submission of National Agency Checks (NACs) for those employees who require privileged access or limited privileged access to NASA systems. SGT agrees to replace any individual when the results of the NAC are not satisfactory to NASA. NACs will be conducted by GSFC Security at no cost to SGT.
- All METS employees with access to NASA IT systems will attend IT security awareness training provided by NASA. At a minimum, these employees will participate in the NASA-provided web-based training on an annual basis. Briefings will be conducted by SGT as required, for all affected personnel, on specific subjects of interest or high priority as designated by the Government throughout the year.

METS Information Technology (IT) Security Plan

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- METS personnel formally assigned as 'administrators' for GSFC systems (via Letter of Designation) shall be confirmed by SGT as having successfully completed all applicable/required training and as demonstrating a working command of the procedures and requirements set forth in the applicable GSFC system security documents.
- SGT will promptly notify the NASA system manager if an employee who holds a user ID on any system is terminated, or otherwise no longer requires access to the system.

1.3 Applicable Documents

NFS 1852.204-76	Security Requirements for Unclassified Information Technology Resources (July 2002)
NPG 2810.1	Security of Information Technology (August 1999)
NPD 2810.1	Security of Information Technology (October 1998)
Federal Register (vol. 65, #136)	Final Rule, Security Requirements for Unclassified IT Resources (July 2000)
OMB -Circular A-130, App III	Security of Federal Automated Information
NPG 1620.1	Security Procedures and Guidelines (November 1999)
GSFC system documentation	System security documentation (plans, procedures, rules of behavior), as applicable for each system

Section 2 -- Off-Site/On-Site Computer Systems

2.1 Off-Site (Contractor Managed) Computer Systems

SGT has determined that no computing resources owned or maintained off-site by the METS contractor will be connected to NASA networks, nor will any NASA sensitive information be hosted on these systems. These systems are, therefore, not subject to the IT security requirements delineated in the METS contract (NNG05CA99C).

2.2 On-Site (Government Managed) Computer Systems

METS personnel will be regular users of on-site computing resources that are subject to IT security requirements, but will not be the responsible system manager. In all cases, the responsibility for these GFE resources remains with the Government. SGT will verify that all METS personnel are properly trained in NASA IT security processes and procedures appropriate for their level of access (as a system user, support technician, or administrator) so that each conforms to the appropriate rules of behavior and can assist their Government counterparts in ensuring IT security standards are maintained.

METS Information Technology (IT) Security Plan

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Section 3 -- Roles and Responsibilities

3.1 Points of Contact (Government and Contractor)

Every METS employee will maintain and have immediately available the contact information and reporting procedures for the Government system security officer responsible for the computing resources that they are assigned or regularly access.

3.2 IT Security Implementation, (Government and Contractor)

Responsibility for implementing key IT security procedures and requirements (primary and secondary responsibilities) by METS personnel and/or other Government personnel are indicated in the following table. METS personnel will be properly trained in all areas of responsibility such that they can ensure full conformance with their primary responsibilities and assist their Government counterparts to achieve compliance in areas of secondary responsibility. Where METS personnel hold primary responsibility, they shall ensure their computer system utilization conforms to established/documented policies and procedures. Where METS personnel hold a secondary responsibility, they shall participate actively in assisting their Government counterpart to develop and implement IT security requirements. Where METS personnel hold an 'awareness' responsibility, they shall observe and remain cognizant of IT security requirements applicable to their work environment, and bring issues of concern to the attention of the responsible party.

Requirement	Responsible Individual/Organization				
	METS System User	METS Webmaster or Curator	METS System Admin	NASA System Admin, Mgr, or Official	METS System Mgr. or Official
IT security planning and documentation	A	A	S	P	--
Rules of behavior	P	P	P	--	--
Identification of restricted info, websites	A	S	A	P	--
Identification of restricted info, data/document	S	S	A	P	--
IT system operation and use	P	P	P	--	--
IT system configuration (HW & OS)	A	A	P	P	--
IT incident reporting & response	P	P	P	--	--
Preservation of 'intrusion evidence' (data)	S	S	P	P	--
IT security training	A	A	A	--	P
Granting system access, user privileges	A	A	P	P	
Personnel screening	A	A	A	P	S
Security compliance reviews	A	A	A	P	S

Key: P – Primary responsibility S – Secondary (support) responsibility A – Awareness

METS Information Technology (IT) Security Plan

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Section 4 -- Training

4.1 IT Security Training Programs

SGT shall maintain an on-going program of instruction to ensure all METS personnel remain familiar with NASA IT Security policies and developing practices consistent with their role and responsibility on the program. Listed below are the different training programs to be completed by the various groups of personnel performing under METS.

Type	Applicability	Source
Basic IT Security	All METS personnel (annual)	NASA, via SOLAR or other designated source
IT training for System Administrators Security (NT, UNIX, Windows, other)	All METS personnel designated as 'Administrator' (annual)	NASA, via SOLAR and classroom instruction
IT Security for Managers	All METS managers (as required)	NASA, via SOLAR or other designated source
General Corporate IT Security Awareness	All METS personnel (as required)	SGT, classroom instruction derived from Government IT security documents and SGT Corporate policies
Understanding ITAR and other content issues	Selective (impacted) METS personnel (as required)	SGT, classroom instruction tailored to subject matter and ITAR policy
Rules of Behavior	All METS personnel (as required)	NASA, desktop review of the Government published Rules of Behavior for the organization/systems regularly accessed by each employee
Web Policy and Practices	Webmasters/curators and other impacted METS personnel (as required)	NASA (via CIO or Goddard Webmasters), classroom instruction and/or web-based training program

Section 5 -- Reference Documents and Related Web Sites

5.1 NASA IT Security Information Resources

The below listed NASA web references are provided to facilitate self-paced learning and requirements research by all METS personnel.

- NASA Web Site Registration and Internet Publishing Content Guidelines
[[@ http://internal.gsfc.nasa.gov/HqwebpolicyNov1601.htm](http://internal.gsfc.nasa.gov/HqwebpolicyNov1601.htm)]
- Internet Publishing Guidelines
[[@ http://internal.gsfc.nasa.gov/HQInternet_pubGuidelinesNov01.htm](http://internal.gsfc.nasa.gov/HQInternet_pubGuidelinesNov01.htm)]
- NPG 2810.1, Security of Information Technology
[[@ http://internal.gsfc.nasa.gov/directives/security.html](http://internal.gsfc.nasa.gov/directives/security.html)]

METS Information Technology (IT) Security Plan

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CNE Security Practices, Policies and Procedures

[@ <http://cne.gsfc.nasa.gov/security>]

IT Security -- Responsibilities of Computer Security Officials, March 2002

[@ <http://forbin2.gsfc.nasa.gov/297>]

Awareness and Training -- NASA Site for On-Line Learning and Resources (SOLAR)

[@ <http://forbin.gsfc.nasa.gov/297/training.stm>]

Related Sites -- IT Security

[@ <http://forbin2.gsfc.nasa.gov/297/rel-sites.stm>]

Enterprise IT Security Branch documents

[@ <http://forbin2.gsfc.nasa.gov/297>]

METS Information Technology (IT) Security Plan
 NNG05CA99C
Appendix A IT Security Implementation Plan

Requirement	Implementation
<p>(a) The Contractor shall be responsible for Information Technology security for all systems connected to a NASA network or operated by the Contractor for NASA, regardless of location. This clause is applicable to all or any part of the contract that includes information technology resources or services in which the Contractor must have physical or electronic access to NASA's sensitive information contained in unclassified systems that directly support the mission of the Agency. This includes information technology, hardware, software, and the management, operation, maintenance, programming, and system administration of computer systems, networks, and telecommunications systems. Examples of tasks that require security provisions include:</p> <ul style="list-style-type: none"> (1) Computer control of spacecraft, satellites, or aircraft or their payloads; (2) Acquisition, transmission or analysis of data owned by NASA with significant replacement cost should the contractor's copy be corrupted; and (3) Access to NASA networks or computers at a level beyond that granted the general public, e.g. bypassing a firewall. <p>(b) The Contractor shall provide, implement, and maintain an IT Security Plan. This plan shall describe the processes and procedures that will be followed to ensure appropriate security of IT resources that are developed, processed, or used under this contract. The plan shall describe those parts of the contract to which this clause applies. The Contractor's IT Security Plan shall be compliant with Federal laws that include, but are not limited to, the Computer Security Act of 1987 (40 U.S.C. 1441 et seq.) and the Government Information Security Reform Act of 2000. The plan shall meet IT security requirements in accordance with Federal and NASA policies and procedures that include, but are not limited to:</p> <ul style="list-style-type: none"> (1) OMB Circular A-130, Management of Federal Information Resources, Appendix III, Security of Federal Automated Information Resources; 	<p>SGT will comply with all requirements, as indicated below. The initial/current program status is summarized in Section 2 of this plan.</p> <p>Not applicable.</p> <p>Not applicable.</p> <p>METS personnel use GFE systems on-site under Government control.</p> <p>This IT Security Plan is applicable to all work performed under NNG05CA99C. The processes and procedures described herein have been implemented for all tasks and all staff performing under this contract have been appropriately screened and trained.</p> <p>The referenced document has been reviewed to ensure that this IT Security Plan is compliant with all applicable requirements.</p>

METS Information Technology (IT) Security Plan
 NNG05CA99C
Appendix A IT Security Implementation Plan

Requirement	Implementation
<p>(2) NASA Procedures and Guidelines (NPG) 2810.1, Security of Information Technology; and</p>	<p>The referenced document has been reviewed to ensure that this IT Security Plan is compliant with all applicable procedures and guidelines.</p>
<p>(3) Chapter 3 of NPG 1620.1, NASA Security Procedures and Guidelines.</p>	<p>The referenced document has been reviewed to ensure that this IT Security Plan is compliant with all applicable procedures and guidelines.</p>
<p>(c) Within 30 days after contract award, the contractor shall submit for NASA approval an IT Security Plan. This plan must be consistent with and further detail the approach contained in the offeror's proposal or sealed bid that resulted in the award of this contract and in compliance with the requirements stated in this clause. The plan, as approved by the Contracting Officer, shall be incorporated into the contract as a compliance document.</p>	<p>This IT Security Plan has been submitted to NASA, and is consistent with SGT's proposal for the referenced contract.</p>
<p>(d)(1) Contractor personnel requiring privileged access or limited privileged access to systems operated by the Contractor for NASA or interconnected to a NASA network shall be screened at an appropriate level in accordance with NPG 2810.1, Section 4.5; NPG 1620.1, Chapter 3; and paragraph (d)(2) of this clause. Those Contractor personnel with non-privileged access do not require personnel screening. NASA shall provide screening using standard personnel screening National Agency Check (NAC) forms listed in paragraph (d)(3) of this clause, unless contractor screening in accordance with paragraph (d)(4) is approved. The Contractor shall submit the required forms to the NASA Center Chief of Security (CCS) within fourteen (14) days after contract award or assignment of an individual to a position requiring screening. The forms may be obtained from the CCS. At the option of the government, interim access may be granted pending completion of the NAC.</p>	<p>SGT will comply with the GSFC procedures for the submission of National Agency Checks (NACs) for personnel of those employees who require privileged access or limited privileged access to NASA systems. SGT agrees to replace any individual when the results of the NAC are not satisfactory to NASA. NACs will be conducted by GSFC Security at no cost to SGT.</p>
<p>(2) Guidance for selecting the appropriate level of screening is based on the risk of adverse impact to NASA missions. NASA defines three levels of risk for which screening is required (IT-1 has the highest level of risk):</p>	<p>The risk levels applicable to the individuals performing this contract are specified below.</p>

METS Information Technology (IT) Security Plan
 NNG05CA99C
Appendix A IT Security Implementation Plan

Requirement	Implementation
<p>(i) IT-1 -- Individuals having privileged access or limited privileged access to systems whose misuse can cause very serious adverse impact to NASA missions. These systems include, for example, those that can transmit commands directly modifying the behavior of spacecraft, satellites or aircraft.</p>	<p>Not applicable.</p>
<p>(ii) IT-2 -- Individuals having privileged access or limited privileged access to systems whose misuse can cause serious adverse impact to NASA missions. These systems include, for example, those that can transmit commands directly modifying the behavior of payloads on spacecraft, satellites or aircraft; and those that contain the primary copy of "level 1" data whose cost to replace exceeds one million dollars.</p>	<p>Not applicable.</p>
<p>(iii) IT-3 -- Individuals having privileged access or limited privileged access to systems whose misuse can cause significant adverse impact to NASA missions. These systems include, for example, those that interconnect with a NASA network in a way that exceeds access by the general public, such as bypassing firewalls; and systems operated by the contractor for NASA whose function or data has substantial cost to replace, even if these systems are not interconnected with a NASA network.</p>	<p>METS employees performing this contract have access to computers connected to NASA/GSFC campus networks, with limited privileged access to NASA networks and web sites not accessible to the general public.</p>
<p>(3) Screening for individuals shall employ forms appropriate for the level of risk as follows: (i) IT-1: Fingerprint Card (FC) 258 and Standard Form (SF) 85P, Questionnaire for Public Trust Positions; (ii) IT-2: FC 258 and SF 85, Questionnaire for Non-Sensitive Positions; and (iii) IT-3: NASA Form 531, Name Check, and FC 258.</p>	<p>SGT will comply with all documentation submission requirements for our staff. All METS staff will secure and maintain GSFC contractor badges.</p>
<p>(4) The Contracting Officer may allow the Contractor to conduct its own screening of individuals requiring privileged access or limited privileged access provided the Contractor can demonstrate that the procedures used by the Contractor are equivalent to NASA's personnel screening procedures. As used here, equivalent includes a check for criminal history, as would be conducted by NASA, and completion of a questionnaire covering the same information as would be required by NASA.</p>	<p>Not applicable.</p>

METS Information Technology (IT) Security Plan
 NNG05CA99C
Appendix A IT Security Implementation Plan

Requirement	Implementation
<p>(5) Screening of contractor personnel may be waived by the Contracting Officer for those individuals who have proof of --</p> <ul style="list-style-type: none"> (i) Current or recent national security clearances (within last three years); (ii) Screening conducted by NASA within last three years; or (iii) Screening conducted by the Contractor, within last three years, that is equivalent to the NASA personnel screening procedures as approved by the Contracting Officer under paragraph (d)(4) of this clause. 	<p>Applicability of any waivers sought will be verified by SGT and communicated to the Contracting Officer.</p>
<p>(e) The Contractor shall ensure that its employees, in performance of the contract, receive annual IT security training in NASA IT Security policies, procedures, computer ethics, and best practices in accordance with NPG 2810.1, Section 4.3 requirements. The contractor may use web-based training available from NASA to meet this requirement.</p>	<p>METS employees with access to NASA IT systems will continue to attend IT security awareness training provided by NASA and SGT. SGT will ensure that, at a minimum, all employees performing on this contract will participate in the NASA-provided web-based training on an annual basis.</p>
<p>(f) The Contractor shall afford NASA, including the Office of Inspector General, access to the Contractor's and subcontractors' facilities, installations, operations, documentation, databases and personnel used in performance of the contract. Access shall be provided to the extent required to carry out a program of IT inspection, investigation and audit to safeguard against threats and hazards to the integrity, availability and confidentiality of NASA data or to the function of computer systems operated on behalf of NASA, and to preserve evidence of computer crime.</p>	<p>SGT will fully cooperate with NASA's IT inspections, investigations, and audits regarding the protection of the integrity, availability, and confidentiality of NASA data, and will fully cooperate with any investigations of computer crime.</p>
<p>(g) The Contractor shall incorporate the substance of this clause in all subcontracts that meet the conditions in paragraph (a) of this clause.</p>	<p>This clause will be included in all subcontracts.</p>

NNG05CA99C

Multi-Disciplinary Engineering &
Technology Services (METS)

Modifications (1-51)
(212105-6112102)

F 5

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT	1. CONTRACT ID CODE	PAGE(S) 1 of 2
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2. AMENDMENT/MODIFICATION NO. One (1)	3. EFFECTIVE DATE See Block 16c	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
--	------------------------------------	----------------------------------	--------------------------------

6. ISSUED BY National Aeronautics and Space Administration Goddard Space Flight Center, Code 210.3 Greenbelt, MD 20771	7. ADMINISTERED BY (If other than Item 6)
---	---

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SGT, Inc. 7701 Greenbelt Road Suite 400 Greenbelt, MD 20770 <i>exp May 21 2005</i>	<input type="checkbox"/>	9A. AMENDMENT OF SOLICITATION NO.
	<input type="checkbox"/>	9B. DATED (SEE ITEM 11):
	<input checked="" type="checkbox"/>	10A. MODIFICATION OF CONTRACT/ORDER NO: NNG05CA99C
CODE:	FACILITY CODE:	10B. DATED (SEE ITEM 13): February 5, 2005

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

[] The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers [] is extended, [] is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or a amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATA SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) B/NC: GCR; PPC: PF: PR: 4200036449, 4200098117

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

A.	THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A. AUTHORITY:
B.	THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 42.103(b).
C.	THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) Clause 52.232-22—LIMITATION OF FUNDS

E. IMPORTANT: Contractor [X] is not, [] is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to provide funding to the contract.

Accordingly,
See Page 2

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLED OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Steven T. Kramer Contracting Officer		
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY <i>St T Kramer</i> (Signature of Contracting Officer)	16C. DATE SIGNED <i>2/2/05</i>

1. Clause B.10—CONTRACT FUNDING--is revised to add funds allotted to this contract as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
Estimated Cost	\$ 0	\$ 2,848,736	\$ 2,848,736
Award Fee	\$ 0	\$ 249,264	\$ 249,264
	=====	=====	=====
TOTAL FUNDS	\$ 0	\$ 3,098,000	\$ 3,098,000

The funding allotment period is from the effective date of the contract through April 1, 2005.

-----END OF MODIFICATION-----

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT	1. CONTRACT ID CODE	PAGE(S) 1 of 2
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2. AMENDMENT/MODIFICATION NO. TWO (2)	3. EFFECTIVE DATE See Block 16c	4. REQUISITION/PURCHASE REQ. NO. 4200100571 & 4200103763 4200098117 (Deob)	5. PROJECT NO. (If applicable)
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6. ISSUED BY National Aeronautics and Space Administration Goddard Space Flight Center, Code 210.3 Greenbelt, MD 20771	7. ADMINISTERED BY (If other than Item 6)
---	---

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SGT, Inc. 7701 Greenbelt Road Suite 400 Greenbelt, MD 20770	<input type="checkbox"/>	9A. AMENDMENT OF SOLICITATION NO.
	<input type="checkbox"/>	9B. DATED (SEE ITEM 11):
	<input checked="" type="checkbox"/>	10A. MODIFICATION OF CONTRACT/ORDER NO: NNG05CA99C
CODE:	FACILITY CODE:	10B. DATED (SEE ITEM 13): December 22, 2004

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

[] The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers [] is extended, [] is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or a amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATA SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA

BNC: GHM	PR #s : 4200100571, 4200103763	TOTAL OBLIGATION \$3,284,500	PPC: PF
	PR# : 4200098117	TOTAL DEOBLIGATION \$40,000	

**13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS,
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A. AUTHORITY:
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 42.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) Clause 52.232-22—LIMITATION OF FUNDS

E. IMPORTANT: Contractor [X] is not, [] is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to revise funding to the contract, to incorporate a revised DD254 and to make administrative changes.

Accordingly;
See Page 2

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLED OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Geraldine T. Humphrey Contracting Officer		
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY <i>Geraldine T. Humphrey</i> (Signature of Contracting Officer)	16C. DATE SIGNED <i>3/21/05</i>

1. Clause B.10 – CONTRACT FUNDING is revised to Deobligate funds allotted to this contract in Modification 1.

Funds are hereby Deobligated from PR#4200098117 in the amount of \$40,000.00.

PLI#	ALI#	Fund	GL Acct	Order
1	1	SAEX22004D	6100.2500	FC400000

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
Estimated Cost	\$ 2,848,736	(36,782)	2,811,954
Award Fee	\$ 249,264	(3,218)	246,046
TOTAL FUNDS	\$ 3,098,000	\$(40,000)	\$ 3,058,000

2. Clause B.10—CONTRACT FUNDING—is revised to add funds allotted to this contract as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
Estimated Cost	\$ 2,811,954	3,020,230	\$5,832,184
Award Fee	246,046	264,270	510,316
TOTAL FUNDS	\$ 3,058,000	\$3,284,500	\$ 6,342,500

The funding allotment period is from the effective date of the contract through May 18, 2005.

3. Attachment B – Orbital Sciences Corp Loaded Labor Rate Matrix is hereby incorporated into the Contract (see Attachment 1 to Modification Two (2).)

4. Attachment D – DD254, Contract Security Classification Specification, Revision 1, dated February 25, 2005 is hereby incorporated into the contract. This version supersedes all previous versions of the DD 254 for this contract. (see Attachment 2 to Modification Two (2))

5. Clause F.1 PLACE OF PERFORMANCE—SERVICES (GSFC 52.237-92) (OCT 1988) The following facility is hereby incorporated into the contract:

1616 McCormick Drive
 Upper Marlboro, MD 20774

6. All other contract terms and conditions remain unchanged.

-----END OF MODIFICATION-----



B 4. ORBITAL SCIENCES CORPORATION LOADED LABOR RATE MATRIX (For All Task Orders):

The Contractor shall not exceed the rates as specified below for pricing the subcontractor labor hours on all task orders contemplated or issued in accordance with Clause H.9, Task Ordering Procedures. Any task orders issued in accordance with Clause H.9 will be applied to the guaranteed minimum quantity and maximum quantity as provided in Clause B.2

++ Labor Categories	*CY1 HR Rate	CY 2 HR Rate	CY 3 HR Rate	CY 4 HR Rate	CY 5 HR Rate	CY 6 HR Rate
Off-Site Loaded Labor Rates – Ops.						
Program Manager						
Business Operations Manager						
Mission Assurance and Safety Officer						
Group Lead, GN&C Engineer						
Group Lead, Information Systems						
Group Lead, Instrument Systems						
Group Lead, Mission Systems						
Administrative Assistant						
Contract Specialist						
Resource Analyst						
Technical Typist						
Technical Recruiter						
Communications Systems Engineer						
Data Systems Engineer						
Detector/Instrument Systems Engineer						
Instrument Manager/Project Engineer						
Scientist						
Flight Operations Systems Engineer						
Sr. Flight Operations Systems Engineer						
Principal Flight Operations Systems Engr						
Ground Systems Engineer						
Mission Systems Engineer						
Power Systems Engineer						
Spacecraft Systems Engineer						
Senior Staff Engineer						
Principal Staff Engineer						
Chief Staff Engineer						
Systems Engineer						
Senior Systems Engineer						
Principal Systems Engineer						
Chief Systems Engineer						
GN&C Systems Engineer						
Junior Engineer						

DEPARTMENT OF DEFENSE CONTRACT SECURITY CLASSIFICATION SPECIFICATION (The requirements of the DoD Industrial Security Manual apply)				1. CLEARANCE AND SAFEGUARDING			
				a. FACILITY CLEARANCE REQUIRED			
				Secret b. LEVEL OF SAFEGUARDING REQUIRED None			
2. THIS SPECIFICATION IS FOR: (X and complete as applicable)				3. THIS SPECIFICATION IS: (X and complete as applicable)			
X	a. PRIME CONTRACT NUMBER NNG05CA99C			X	a. ORIGINAL (Complete date in all cases)		Date (YYMMDD) 05/02/01
	b. SUBCONTRACT NUMBER			X	b. REVISED (Supersedes all previous specs)		Revision No. 1 Date (YYMMDD) 05/02/25
	c. SOLICITATION OR OTHER		Due Date (YYMMDD)		FINAL (Complete Item 5 in all cases)		Date (YYMMDD)
4. IS THIS A FOLLOW-ON CONTRACT?				NO. If Yes, complete the following:			
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Classified material received or generated under <u>NAS5-99124</u> (Preceding Contract Number) are transferred to this follow-on contract.							
5. IS THIS A FINAL DD FORM 254?				NO. If Yes, complete the following:			
<input type="checkbox"/> YES <input type="checkbox"/> NO In response to the contractor's request dated _____, retention of the classified material is authorized for the period _____.							
6. CONTRACTOR (Include Commercial and Government Entity (CAGE) Code)							
a. NAME, ADDRESS, AND ZIP CODE			b. CAGE		c. COGNIZANT SECURITY OFFICE (Name, Address, and Zip)		
SGT, Inc 7701 Greenbelt Road, Suite 400 Greenbelt, MD 20770			1DDX3		Defense Security Service 938 Elkridge Landing Road, Suite 300 Linthicum, MD 21090		
7. SUBCONTRACTOR							
a. NAME, ADDRESS, AND ZIP CODE			b. CAGE		c. COGNIZANT SECURITY OFFICE (Name, Address, and Zip)		
8. ACTUAL PERFORMANCE							
a. LOCATION			b. CAGE		c. COGNIZANT SECURITY OFFICE (Name, Address, and Zip)		
9. GENERAL IDENTIFICATION OF THIS PROCUREMENT							
Multi-Disciplinary Engineering and Technology Services (METS) for the formulation, design, development, non-flight fabrication, integration, testing, verification, and operations of space flight, and ground system hardware and software.							
10. CONTRACTOR WILL REQUIRE ACCESS TO:				11. IN PERFORMING THIS CONTRACT, THE CONTRACTOR			
a. COMMUNICATIONS SECURITY (COMSEC) INFORMATION				a. HAVE ACCESS TO CLASSIFIED INFORMATION ONLY AT ANOTHER CONTRACTOR'S FACILITY OR A GOVERNMENT ACTIVITY			
b. RESTRICTED DATA				b. RECEIVE CLASSIFIED DOCUMENTS ONLY			
c. CRITICAL NUCLEAR WEAPON DESIGN INFORMATION				c. RECEIVE AND GENERATE CLASSIFIED MATERIAL			
d. FORMERLY RESTRICTED DATA				d. FABRICATE, MODIFY, OR STORE CLASSIFIED HARDWARE			
e. INTELLIGENCE INFORMATION				e. PERFORM SERVICES ONLY			
(1) Sensitive Compartmented Information (SCI)				f. HAVE ACCESS TO U.S. CLASSIFIED INFORMATION OUTSIDE THE U.S., PUERTO RICO, U.S. POSSESSIONS AND TRUST TERRITORIES			
(2) Non-SCI				g. BE AUTHORIZED TO USE THE SERVICES OF DEFENSE TECHNICAL INFORMATION CENTER (DTIC) OR OTHER SECONDARY DISTRIBUTION CENTER			
f. SPECIAL ACCESS INFORMATION				h. REQUIRE A COMSEC ACCOUNT			
g. NATO INFORMATION				i. HAVE TEMPEST REQUIREMENTS			
h. FOREIGN GOVERNMENT INFORMATION				j. HAVE OPERATIONS SECURITY (OPSEC) REQUIREMENTS			
i. LIMITED DISSEMINATION INFORMATION				k. BE AUTHORIZED TO USE THE DEFENSE COURIER SERVICE			
j. FOR OFFICIAL USE ONLY INFORMATION				l. OTHER (Specify)			
k. OTHER (Specify)							

12. PUBLIC RELEASE Any information (classified or unclassified) pertaining to this contract shall not be released for public dissemination except as provided by the Industrial Security Manual unless it has been approved for public release by appropriate U.S. Government authority. Proposed public releases shall be submitted for approval prior to release

Direct Through (Specify)

NASA/GODDARD SPACE FLIGHT CENTER 130/PUBLIC AFFAIRS OFFICE GREENBELT, MD 20771

CC To the Public Affairs Division, NASA Headquarters, Washington, D.C. 20546 for review.

13. SECURITY GUIDANCE. The security classification guidance needed for this classified effort is identified below. If any difficulty is encountered in applying this guidance or if any other contributing factor indicates a need for changes in this guidance, the contractor is authorized and encouraged to provide recommended changes; to challenge the guidance or the classification assigned to any information or material furnished or generated under this contract; and to submit any questions for interpretation of this guidance to the official identified below. Pending final decision, the information involved shall be handled and protected at the highest level of classification assigned or recommended. (Fill in as appropriate for the classified effort. Attach, or forward under separate correspondence, any documents/guides/extracts referenced herein. Add additional pages as needed to provide complete guidance.)

The contractor must have a sufficient number of cleared employees assigned duties under this contract to be able to complete all classified work assignments up to and including SECRET.

The following documents shall be applicable and binding in the performance of this contract:

1. Space Network Security Classification Guide, September 16, 1996 (currently under revision)
2. DoD 5220.22-M, National Industrial Security Program Operating Manual, January 1995
3. DoD 5220.22-A, COMSEC Annex to the National Industrial Security Program Operating Manual (Coordination Copy), June 1995
4. NCSC-1 – National Policy for Safeguarding and Control of Communications Security Material, 1/16/81
5. NPR 2810.1, Security of Information Technology, August 26, 1999
6. NPD 2810.1C, NASA Information Security Police, April 7, 2004
7. NPR 1600.1, NASA Security Program Procedural requirements, 11/3/04
8. NPD 1600.2C, NASA Security Policy, April 28, 2004
9. GHB 1600.1A, GSFC Security Manual, November 30, 1990
10. OMB Circular A.130, Appendix III, Security of Federal Automated Information Resources
11. Computer Security Act of 1987, as amended

Continue on Page 3

Revision No. 1 issued to update Security Guidance (Block 13)

14. ADDITIONAL SECURITY REQUIREMENTS. Requirements, in addition to ISM requirements, are established for this contract. (If Yes, identify the pertinent contractual clauses in the contract document itself, or provide an appropriate statement which identifies the additional requirements. Provide a copy of the requirements to the cognizant security office. Use Item 13 if additional space is needed.) Yes No

15. INSPECTIONS. Elements of this contract are outside the inspection responsibility of the cognizant security office. (If Yes, explain and identify specific areas or elements carved out and the activity responsible for inspections. Use Item 13 if additional space is needed.) Yes No

16. CERTIFICATION AND SIGNATURE. Security requirements stated herein are complete and adequate for safeguarding the classified information to be released or generated under this classified effort. All questions shall be referred to the official named below.

a. TYPED NAME OF CERTIFYING OFFICIAL Pamela A. Starling	b. TITLE Industrial Security Specialist	c. TELEPHONE (Include Area Code) 301-286-6865
d. ADDRESS (Include Zip Code) NASA Goddard Space Flight Center Code 240 Greenbelt, MD 20771	17. REQUIRED DISTRIBUTION <input checked="" type="checkbox"/> a. CONTRACTOR <input checked="" type="checkbox"/> b. SUBCONTRACTOR <input checked="" type="checkbox"/> c. COGNIZANT SECURITY OFFICE FOR PRIME AND SUBCONTRACTOR <input type="checkbox"/> d. U.S. ACTIVITY RESPONSIBLE FOR OVERSEAS SECURITY ADMINISTRATION <input checked="" type="checkbox"/> e. ADMINISTRATIVE CONTRACTING OFFICER <input checked="" type="checkbox"/> f. OTHERS AS NECESSARY NASA Headquarters, OSPP; Code 130	
e. SIGNATURE 		

12. NASA Policy Directive (NPD) 1660.1, NASA Counterintelligence (CI) Policy
13. NASA Procedural Requirements (NPR) 1660.1, Counterintelligence (CI)/Counterterrorism (CT) Procedural Requirements

Any employee, who observes or becomes aware of the deliberate or suspected compromise of classified national security information shall promptly report such information personally to the GSFC Counter Intelligence (CI) Office. If unclassified but sensitive information appears compromised by or on behalf of foreign or domestic powers, organizations or persons, employees shall report such information to the GSFC CI Office. If an employee becomes aware of information pertaining to international or domestic terrorist activities, employees shall also report to the GSFC CI Office. If the information indicates a computer compromise or other cyber intrusion, the Office of Inspector General shall be promptly notified.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE OF PAGES 1 2
2. AMENDMENT/MODIFICATION NO. Three (3)	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO. N/A	5. PROJECT NO. (If applicable)	
6. ISSUED BY National Aeronautics and Space Administration Mission Enabling Procurement Office Goddard Space Flight Center Greenbelt, MD 20771		7. ADMINISTERED BY (If other than Item 6)	CODE	
8. NAME AND ADDRESS OF CONTRACTOR (No. Street, county, State and ZIP: Code) SGT, INC. 7701 Greenbelt Road Suite 400 Greenbelt, MD 20770			(<input checked="" type="checkbox"/>) 9A. AMENDMENT OF SOLICITATION NO.	
			(<input type="checkbox"/>) 9B. DATED (SEE ITEM 11)	
			(<input checked="" type="checkbox"/>) 10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C	
			(<input type="checkbox"/>) 10B. DATED (SEE ITEM 13) DEC 22,2004	
CODE	FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning one (1) copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATA SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and data specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) BNC:234, PPC: GF

BN/C: GHM

SEE PAGE 2

PPC: PF

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS,
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(<input checked="" type="checkbox"/>) A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:)
D. OTHER Specify type of modification and authority <input checked="" type="checkbox"/> Clause 52.232-22 LIMITATION OF FUNDS

E. IMPORTANT: Contractor (X) is not, is required to sign this document and return ___ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to revise funding to the contract.

Accordingly: Page 2

(Continued on page 2)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) GERALDINE T. HUMPHREY Contracting Officer		
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
(Signature of person authorized to sign)		BY <i>Geraldine T. Humphrey</i> (Signature of Contracting Officer)	4-12-05

1. Clause B.10 – CONTRACT FUNDING is revised to Deobligate funds allotted to this contract in Modification 2.

Funds are hereby **Deobligated** from PR#4200100571 in the amount of \$700,000.00

PLI#	ALI#	Fund	GL Acct	Order
6	1	ESAX22005D	6100.2500	FC400000

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
Estimated Cost	\$ 5,832,184	(643,678)	5,188,506
Award Fee	\$ 510,316	(56,322)	453,994
	=====	=====	=====
TOTAL FUNDS	\$ 6,342,500	\$(700,000)	\$5,642,500

2. Clause B.10—CONTRACT FUNDING—is revised to **Obligate** funds in the amount of \$489,000.00 from PR# 4200106383 allotted to this contract as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
Estimated Cost	\$ 5,188,506	\$449,655	\$5,638,161
Award Fee	453,994	39,345	493,339
	=====	=====	=====
TOTAL FUNDS	\$ 5,642,500	\$ 489,000	\$ 6,131,500

3. Clause B.10 – CONTRACT FUNDING is revised to Deobligate funds allotted to this contract in Modification 2 and correct an accounting error.

Funds are hereby **Deobligated** from PR#4200103763 in the amount of \$40,000.00

PLI#	ALI#	Fund	GL Acct	Order
4	20	SAEX22004D	6100.2500	FC400000

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
Estimated Cost	\$ 5,638,161	\$(36,782)	\$5,601,379
Award Fee	493,339	(3,218)	490,121
	=====	=====	=====
TOTAL FUNDS	\$ 6,131,500	\$(40,000)	\$ 6,091,500

All other contract terms and conditions remain unchanged.

-----END OF MODIFICATION-----

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE OF PAGES 1 2
2. AMENDMENT/MODIFICATION NO. Four (4)	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO. 4200109321	5. PROJECT NO. (If applicable)	
6. ISSUED BY National Aeronautics and Space Administration Mission Enabling Procurement Office Goddard Space Flight Center Greenbelt, MD 20771	CODE 210.3	7. ADMINISTERED BY (If other than Item 6)		CODE
8. NAME AND ADDRESS OF CONTRACTOR (No. Street, county, State and ZIP: Code) SGT, INC. 7701 Greenbelt Road Suite 400 Greenbelt, MD 20770			(<input checked="" type="checkbox"/>) 9A. AMENDMENT OF SOLICITATION NO.	
			(<input type="checkbox"/>) 9B. DATED (SEE ITEM 11)	
			(<input checked="" type="checkbox"/>) 10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C	
			(<input type="checkbox"/>) 10B. DATED (SEE ITEM 13) DEC 22, 2004	
CODE	FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning one (1) copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATA SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and data specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) BNC:234, PPC: GF

BN/C: GHM

PR# 4200109321

TOTAL OBLIGATION \$2,901,256.00

PPC: PF

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS,
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(<input checked="" type="checkbox"/>) A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:)
D. OTHER Specify type of modification and authority <input checked="" type="checkbox"/> Clause 52.232-22 LIMITATION OF FUNDS

E. IMPORTANT: Contractor (X) is not, is required to sign this document and return ___ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to revise funding to the contract.

Accordingly: Page 2

(Continued on page 2)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) GERALDINE T. HUMPHREY Contracting Officer		
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
(Signature of person authorized to sign)		BY <i>Geraldine T. Humphrey</i> (Signature of Contracting Officer)	5-17-05

1.. Clause B.10—CONTRACT FUNDING--is revised to **Obligate** funds in the amount of \$2,901,256.00 from PR# 4200109321 allotted to this contract as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
Estimated Cost	\$ 5,601,379	\$2,667,822	\$8,269,201
Award Fee	490,121	\$233,434	723,555
TOTAL FUNDS	<u>\$ 6,091,500</u>	<u>\$2,901,256</u>	<u>\$ 8,992,756</u>

Allotment date is through June 16, 2005.

All other contract terms and conditions remain unchanged.

-----END OF MODIFICATION-----

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE OF PAGES 1 2
2. AMENDMENT/MODIFICATION NO. Five (5)	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO. 4200114069	5. PROJECT NO. (If applicable)	
6. ISSUED BY National Aeronautics and Space Administration Mission Enabling Procurement Office Goddard Space Flight Center Greenbelt, MD 20771	CODE 210.3	7. ADMINISTERED BY (If other than Item 6)		CODE
8. NAME AND ADDRESS OF CONTRACTOR (No. Street, county, State and ZIP: Code) SGT, INC. 7701 Greenbelt Road Suite 400 Greenbelt, MD 20770			(✓)	9A. AMENDMENT OF SOLICITATION NO.
				9B. DATED (SEE ITEM 11)
			X	10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C
				10B. DATED (SEE ITEM 13) DEC 22, 2004
CODE	FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning one (1) copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram, which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATA SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and data specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) BNC:234, PPC: GF

BNC: GH1

PR# 4200114069

TOTAL OBLIGATION \$4,334,830

PPC: PF

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS,
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(✓)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:)
X	D. OTHER Specify type of modification and authority Clause 52.232-22 LIMITATION OF FUNDS

E. IMPORTANT: Contractor (X) is not, is required to sign this document and return ___ copies to the issuing office.

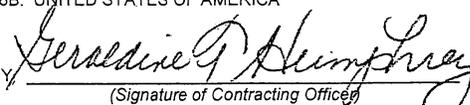
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to revise funding to the contract.

Accordingly: Page 2

(Continued on page 2)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) GERALDINE T. HUMPHREY Contracting Officer	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY  (Signature of Contracting Officer)	16C. DATE SIGNED 6/13/05
(Signature of person authorized to sign)			

1.. Clause B.10—CONTRACT FUNDING--is revised to **Obligate** funds in the amount of \$4,334,830.00 from PR# 4200114069 allotted to this contract as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
Estimated Cost	\$ 8,269,201	\$3,986,051	\$12,255,252
Award Fee	723,555	348,779	1,072,334
TOTAL FUNDS	<u>\$ 8,992,756</u>	<u>\$4,334,830</u>	<u>\$ 13,327,586</u>

Allotment date is through July 27, 2005.

All other contract terms and conditions remain unchanged.

-----END OF MODIFICATION-----

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE OF PAGES 1 2
2. AMENDMENT/MODIFICATION NO. Six (6)	3. EFFECTIVE DATE July 5, 2005	4. REQUISITION/PURCHASE REQ. NO. 4200118872	5. PROJECT NO. (If applicable)	
6. ISSUED BY National Aeronautics and Space Administration Mission Enabling Procurement Office Goddard Space Flight Center Greenbelt, MD 20771		7. ADMINISTERED BY (If other than Item 6)	CODE	
8. NAME AND ADDRESS OF CONTRACTOR (No. Street, county, State and ZIP: Code) SGT, INC. 7701 Greenbelt Road Suite 400 Greenbelt, MD 20770			(✓)	9A. AMENDMENT OF SOLICITATION NO.
				9B. DATED (SEE ITEM 11)
			X	10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C
				10B. DATED (SEE ITEM 13) DEC 22, 2004
CODE	FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning one (1) copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATA SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and data specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) BNC:234, PPC: GF

BNC: GHL

PR# 4200118872

TOTAL OBLIGATION \$4,749,517.00

PPC: PF

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS,
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(✓)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:)
	D. OTHER Specify type of modification and authority
X	Clause 52.232-22 LIMITATION OF FUNDS

E. IMPORTANT: Contractor (X) is not, is required to sign this document and return ___ copies to the issuing office.

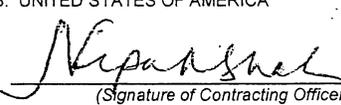
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to revise funding to the contract.

Accordingly: Page 2

(Continued on page 2)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
		Nipa Shah Contracting Officer	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
(Signature of person authorized to sign)		BY  (Signature of Contracting Officer)	7/5/05

1.. Clause B.10—CONTRACT FUNDING--is revised to **Obligate** funds in the amount of \$4,749,517.00 from PR# 4200118872 allotted to this contract as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
Estimated Cost	\$ 12,255,252	\$4,367,372	\$16,622,624
Award Fee	1,072,334	382,145	1,454,479
TOTAL FUNDS	<u>\$ 13,327,586</u>	<u>\$4,749,517</u>	<u>\$ 18,077,103</u>

Allotment date is through September 6, 2005.

All other contract terms and conditions remain unchanged.

-----END OF MODIFICATION-----

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE OF PAGES 1 2
2. AMENDMENT/MODIFICATION NO. Seven (7)	3. EFFECTIVE DATE See 16C	4. REQUISITION/PURCHASE REQ. NO. 4200122308	5. PROJECT NO. (If applicable)	
6. ISSUED BY National Aeronautics and Space Administration Mission Enabling Procurement Office Goddard Space Flight Center	CODE 210.3	7. ADMINISTERED BY (If other than Item 6)		CODE
8. NAME AND ADDRESS OF CONTRACTOR (No. Street, county, State and ZIP: Code) SGT, INC. 7701 Greenbelt Road Suite 400 Greenbelt, MD 20770			<input checked="" type="checkbox"/>	9A. AMENDMENT OF SOLICITATION NO.
				9B. DATED (SEE ITEM 11)
			<input checked="" type="checkbox"/>	10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C
				10B. DATED (SEE ITEM 13) Dec 22, 2004
CODE	FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:
(a) By completing Items 8 and 15, and returning one (1) copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATA SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and data specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

B/NC: GHL PR#: 4200122308 PPC: PF

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

<input checked="" type="checkbox"/>	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
<input type="checkbox"/>	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
<input type="checkbox"/>	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
<input checked="" type="checkbox"/>	D. OTHER Specify type of modification and authority Clause 52.232-22 LIMITATION OF FUNDS
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return ___ copies to the issuing office.	

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to revise funding to the contract.

Accordingly: Page 2

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Geraldine T. Humphrey	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
 <i>(Signature of person authorized to sign)</i>		BY <i>Geraldine T. Humphrey</i> <i>(Signature of Contracting Officer)</i>	August 8, 2005

1.. Clause B.10—CONTRACT FUNDING--is revised to **Obligate** funds in the amount of \$787,041 from PR# 4200122308 allotted to this contract as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
Estimated Cost	\$ 16,622,624	\$723,717	\$17,346,341
Award Fee	1,454,479	63,324	1,517,803
TOTAL FUNDS	<u>\$ 18,077,103</u>	<u>\$787,041</u>	<u>\$18,864,144</u>

Allotment date is through September 15, 2005.

All other contract terms and conditions remain unchanged.

-----END OF MODIFICATION-----

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE OF PAGES 1 2
2. AMENDMENT/MODIFICATION NO. Eight (8)	3. EFFECTIVE DATE See 16C	4. REQUISITION/PURCHASE REQ. NO. 4200127629	5. PROJECT NO. (If applicable)	
6. ISSUED BY National Aeronautics and Space Administration Mission Enabling Procurement Office Goddard Space Flight Center		7. ADMINISTERED BY (If other than Item 6)	CODE	
8. NAME AND ADDRESS OF CONTRACTOR (No. Street, county, State and ZIP: Code) SGT, INC. 7701 Greenbelt Road Suite 400 Greenbelt, MD 20770		(✓) 9A. AMENDMENT OF SOLICITATION NO.	9B. DATED (SEE ITEM 11)	
CODE		FACILITY CODE	10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C	
			10B. DATED (SEE ITEM 13) Dec. 22, 2004	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:
 (a) By completing Items 8 and 15, and returning one (1) copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATA SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and data specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

B/NC: GHL PR#: 4200127629 PPC: PF

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(✓) A.	THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
B.	THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
C.	THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X D.	OTHER Specify type of modification and authority Clause 52.232-22 LIMITATION OF FUNDS

E. IMPORTANT: Contractor is not, is required to sign this document and return ___ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to revise funding to the contract.

Accordingly: Page 2

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Geraldine T. Humphrey	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY <i>Geraldine T. Humphrey</i> (Signature of Contracting Officer)	16C. DATE SIGNED September 1, 2005
(Signature of person authorized to sign)			

1.. Clause B.10—CONTRACT FUNDING--is revised to **Obligate** funds in the amount of \$3,791,300 from PR# 4200127629 allotted to this contract as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
Estimated Cost	\$ 17,346,341	\$3,486,253	\$20,832,594
Award Fee	1,517,803	305,047	1,822,850
TOTAL FUNDS	<u>\$ 18,864,144</u>	<u>\$3,791,300</u>	<u>\$ 22,655,444</u>

Allotment date is through November 2, 2005.

All other contract terms and conditions remain unchanged.

-----END OF MODIFICATION-----

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE OF PAGES 1 2
2. AMENDMENT/MODIFICATION NO. Nine (9)	3. EFFECTIVE DATE Block 16c.	4. REQUISITION/PURCHASE REQ. NO. N/A	5. PROJECT NO. (If applicable)	
6. ISSUED BY National Aeronautics and Space Administration Mission Enabling Procurement Office Goddard Space Flight Center Greenbelt, MD 20771	CODE 210.3	7. ADMINISTERED BY (If other than Item 6)		CODE
8. NAME AND ADDRESS OF CONTRACTOR (No. Street, county, State and ZIP: Code) SGT, INC. 7701 Greenbelt Road Suite 400 Greenbelt, MD 20770			(<input checked="" type="checkbox"/>) 9A. AMENDMENT OF SOLICITATION NO.	
			9B. DATED (SEE ITEM 11)	
			(<input checked="" type="checkbox"/>) 10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C	
			10B. DATED (SEE ITEM 13) DEC 22, 2004	
CODE	FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning one (1) copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATA SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and data specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) BNC:234, PPC: GF

BN/C: GHM

PPC: PF

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS,
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(<input checked="" type="checkbox"/>) A.	THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
B.	THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
C.	THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:)
(<input checked="" type="checkbox"/>) D.	OTHER Specify type of modification and authority Clause 52.232-22 LIMITATION OF FUNDS, Unilateral Pursuant to NFS 1852.216-76

E. IMPORTANT: Contractor (X) is not, is required to sign this document and return ___ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to issue the award fee determination.

Accordingly: Page 2

(Continued on page 2)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) GERALDINE T. HUMPHREY Contracting Officer		
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY <i>Geraldine T. Humphrey</i> (Signature of Contracting Officer)	16C. DATE SIGNED 9-15-05
(Signature of person authorized to sign)			

1. This modification recognizes the Award Fee earned for the first (1) evaluation period from February 5, 2005 – July 31, 2005. Of the total available award fee of \$1,277,308.00, the Contractor earned \$1,187,896.00 or 93%.
2. The following provisional fee payments have been submitted for payment during the first period:

DATE:	FEE VOUCHER NO	AMOUNT
2/05/05-2/20/05	000001F	\$ 62,984.00
2/21/05-3/27/05	000002F	\$178,386.00
3/28/05-4/24/05	000003F	\$186,938.00
4/25/05-5/22/05	000004F	\$200,618.00
5/23/05-6/26/05	000005F	\$220,964.00
6/27/05-7/24/05	000006F	\$171,956.00
TOTAL		\$1,021,846.00

3. The total amount of earned award fee less the sum of provisional payment follows:

First (1) Period Earned Award Fee	\$1,187,896.00
Less Provisional Fee Payment	- \$1,021,846.00
Net Amount	\$166,050.00

4. All other contract terms and conditions remain unchanged.

(End of Modification)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE OF PAGES 1 2
2. AMENDMENT/MODIFICATION NO. Ten (10)	3. EFFECTIVE DATE See 16C.	4. REQUISITION/PURCHASE REQ. NO. 4200132693	5. PROJECT NO. (If applicable)	
6. ISSUED BY National Aeronautics and Space Administration Mission Enabling Procurement Office Goddard Space Flight Center Greenbelt, MD 20771		7. ADMINISTERED BY (If other than Item 6)	CODE	
8. NAME AND ADDRESS OF CONTRACTOR (No. Street, county, State and ZIP: Code) SGT, INC. 7701 Greenbelt Road Suite 400 Greenbelt, MD 20770		(✓)	9A. AMENDMENT OF SOLICITATION NO.	
			9B. DATED (SEE ITEM 11)	
		X	10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C	
			10B. DATED (SEE ITEM 13) DEC 22, 2004	
CODE	FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning one (1) copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATA SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and data specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

B/NC: GHL

PR#: 4200132693

PPC: PF

**13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS,
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

(✓)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER Specify type of modification and authority Clause 52.232-22 LIMITATION OF FUNDS

E. IMPORTANT: Contractor is not, is required to sign this document and return ___ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to revise funding to the contract.

Accordingly: Page 2

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Geraldine T. Humphrey	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
 <i>(Signature of person authorized to sign)</i>		BY  <i>(Signature of Contracting Officer)</i>	9/27/05

1. Clause B.10—CONTRACT FUNDING—is revise to **Obligate** funds in the amount of \$8,002,459 from PR# 4200132693 allotted to this contract as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
Estimated Cost	\$20,832,594	\$7,358,583	\$28,191,177
Award Fee	1,822,850	643,876	2,466,726
	=====	=====	=====
TOTAL FUNDS	\$ 22,655,444	\$8,002,459	\$30,657,903

Allotment date is through January 20, 2006.

All other contract terms and conditions remain unchanged.

-----END OF MODIFICATION-----

AMENDMENT/MODIFICATION NO. en (11)	3. EFFECTIVE DATE See 16C	4. REQUISITION/PURCHASE REQ. NO. 4200136419	5. PROJECT NO. (If applicable)
SUBMITTED BY	CODE 210.3	7. ADMINISTERED BY (If other than Item 6)	CODE

National Aeronautics and Space Administration
Mission Enabling Procurement Office
Goddard Space flight Center
Greenbelt, MD 20771

NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) GT, Inc. 701 Greenbelt Road Suite 400 Greenbelt, MD 20770	(X)	9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
		10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C
		10B. DATED (SEE ITEM 13) 12/22/2004

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended. Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

- (i) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and received prior to the opening hour and date specified.

2. Accounting and Appropriation Data (If required)
GIC: GIC PR: 4200136419 PPC: PF

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

- A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
- B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
- C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
- D. OTHER (Specify type of modification and authority)
(Unilateral) Clause 52.232-22 LIMITATION OF FUNDS (APR 1984)

IMPORTANT: Contractor is not, is required to sign this document and _____ copies to the issuing office. return

4. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
The purpose of this modification is to revise funding to the contract.

Accordingly: Page 2

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

5A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF SIGNER (Type or print) <i>Teresa S. Shaw</i>	16B. UNITED STATES OF AMERICA BY <i>Teresa S. Shaw</i> (Signature of Contracting Officer)	16C. DATE SIGNED <i>11/16/2005</i>
5B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED		

1. Clause B. 10---CONTRACT FUNDING---is revised to Obligate funds in the amount of \$3,128,000.00 from PR# 4200136419 allotted to this contract as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
Estimated Cost	\$28,191,177	\$2,876,322	\$31,067,499
Award Fee	\$ 2,466,726	\$ 251,678	\$ 2,718,404
TOTAL FUNDS	<u>\$30,657,903</u>	<u>\$3,128,000</u>	<u>\$33,785,903</u>

Allotment date is through February 22, 2006 per contractor e-mail dated November 15, 2005.

2. All other contract terms and conditions remain unchanged.

(End of Modification # 11)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE PAGE OF PAGES
1 2

AMENDMENT/MODIFICATION NO. 3. EFFECTIVE DATE 4. REQUISITION/PURCHASE REQ. NO. 5. PROJECT NO. (If applicable)
 6. ISSUED BY CODE 210.3 See 16C 4200140186
 7. ADMINISTERED BY (If other than Item 6) CODE

National Aeronautics and Space Administration
 Mission Enabling Procurement Office
 Standard Space flight Center
 Greenbelt, MD 20771

NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) (X) 9A. AMENDMENT OF SOLICITATION NO.
 T, Inc.
 11 Greenbelt Road Suite 400
 Greenbelt, MD 20770
 9B. DATED (SEE ITEM 11)
 10A. MODIFICATION OF CONTRACT/ORDER NO.
 NNG05CA99C
 10B. DATED (SEE ITEM 13)
 12/22/2004

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended.
 You must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you agree to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

Accounting and Appropriation Data (If required)
 UIC: GIC PR: 4200140186 PPC: PF

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

- A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
- B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
- C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
- D. OTHER (Specify type of modification and authority)
 (Unilateral) Clause 52.232-22 LIMITATION OF FUNDS (APR 1984)

IMPORTANT: Contractor is not, is required to sign this document and _____ copies to the issuing office.
 return

DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
 The purpose of this modification is to revise funding to the contract.
 Enclosingly: Page 2

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF SIGNER (Type or print)
CONTRACTOR/OFFEROR	Teresa S. Shaw
15C. DATE SIGNED	16B. UNITED STATES OF AMERICA
(Signature of person authorized to sign)	BY <u>Teresa S. Shaw</u> (Signature of Contracting Officer)
	16C. DATE SIGNED 12/27/2005

1. Clause B. 10---CONTRACT FUNDING---is revised to Obligate funds in the amount of \$3,128,000.00 from PR# 4200136419 allotted to this contract as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
Estimated Cost	\$31,067,499	\$2,034,875	\$33,102,374
Award Fee	\$ 2,718,404	\$ 195,125	\$ 2,913,529
TOTAL FUNDS	<u>\$33,785,903</u>	<u>\$2,230,000</u>	<u>\$36,015,903</u>

Allotment date is through March 13, 2006 per contractor e-mail dated December 27, 2005.

2. All other contract terms and conditions remain unchanged.

(End of Modification # 12)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE OF PAGES 1 2
2. AMENDMENT/MODIFICATION NO. Thirteen (13)	3. EFFECTIVE DATE See Item 16C Below	4. REQUISITION/PURCHASE REQ. NO. See Item 12 Below	5. PROJECT NO. (If applicable)	
6. ISSUED BY National Aeronautic and Space Administration Goddard Space Flight Center Greenbelt, MD 20771		7. ADMINISTERED BY (If other than Item 6)		
8. NAME AND ADDRESS OF CONTRACTOR (No. Street, county, State and ZIP: Code) SGT, Inc. 7701 Greenbelt Road, Suite 400 Greenbelt, MD 20770		(4)	9A. AMENDMENT OF SOLICITATION NO.	
CODE		9B. DATED (SEE ITEM 11)		
FACILITY CODE		10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C		
		10B. DATED (SEE ITEM 13) February 5, 2005		

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning one (1) copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATA SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and data specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

Buyer Code/PGrp: GEU PR No.: 4200143477 Amount: \$4,794,418 PPC: PF

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(4)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER Specify type of modification and authority) (Unilateral) FAR Clause 52.232-22, LIMITATION OF FUNDS (APR 1984)

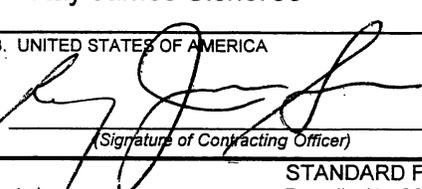
E. IMPORTANT: Contractor is not, is required to sign this document and return ___ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

This modification increased the funds allotted to the contract.

(Continued)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Ray James Sisneros	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY  (Signature of Contracting Officer)	16C. DATE SIGNED FEB 23 2006
(Signature of person authorized to sign)			

Contract NNG05CA99C
Modification Number 13
Page 2 of 2

Accordingly,

1. Revise Clause B.10, CONTRACT FUNDING (1852.232-81)
(JUN 1990), to increase the funds allotted for payment of
cost and fee as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
a. Estimated Cost	\$33,102,374	\$4,424,358	\$37,526,732
b. Award Fee	<u>2,913,529</u>	<u>370,060</u>	<u>3,283,589</u>
Total Funds	<u>\$36,015,903</u>	<u>\$4,794,418</u>	<u>\$40,810,321</u>

The allotment date for funds is changed to May 1, 2006.

--END OF MODIFICATION NUMBER 13--

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE	PAGE OF PAGES 1 2
2. AMENDMENT/MODIFICATION NO. Fourteen (14)	3. EFFECTIVE DATE See Item 16C Below	4. REQUISITION/PURCHASE REQ. NO. See Item 12 Below	5. PROJECT NO. (If applicable)		
6. ISSUED BY National Aeronautic and Space Administration Goddard Space Flight Center Greenbelt, MD 20771		7. ADMINISTERED BY (If other than Item 6)	CODE		
8. NAME AND ADDRESS OF CONTRACTOR (No. Street, county, State and ZIP: Code) SGT, Inc. 7701 Greenbelt Road, Suite 400 Greenbelt, MD 20770				(4) 9A. AMENDMENT OF SOLICITATION NO.	9B. DATED (SEE ITEM 11)
CODE				10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C	
FACILITY CODE				10B. DATED (SEE ITEM 13) February 5, 2005	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning one (1) copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATA SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and data specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

Buyer Code/PGrp: GEU

N/A

PPC: PF

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(4) A.	THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
B.	THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
C.	THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X D.	OTHER Specify type of modification and authority (Unilateral) Clause G.5, AWARD FEE FOR SERVICE CONTRACTS (1852.216-76)(JUNE 2000)

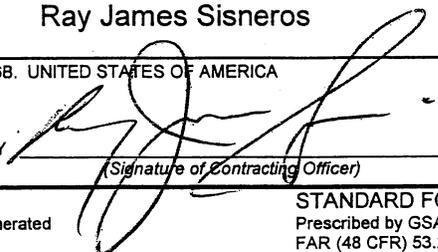
E. IMPORTANT: Contractor is not, is required to sign this document and return ___ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

This modification issues the award fee determination for the second (2nd) award fee evaluation period (August 1, 2005 - January 31, 2006).

(Continued)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Ray James Sisneros		
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
(Signature of person authorized to sign)		BY  (Signature of Contracting Officer)	MAR 28 2006

Accordingly,

1. This modification recognizes the Award Fee earned for the second (2nd) evaluation period (August 1, 2005 - January 31, 2006). The contractor earned \$1,380,403 or 95% of the total available award fee of \$1,446,963.
2. Provisional award fee vouchers submitted for payment during the second (2nd) evaluation period are as follows:

DATE	FEE VOUCHER NO.	AMOUNT
7/25/05 - 8/21/05	000007F	\$195,659
8/22/05 - 9/30/05	000008F	\$233,975
10/1/05 - 10/23/05	10	\$170,759
10/24/05 - 11/20/05	11	\$180,483
11/21/05 - 12/25/05	12	\$229,579
12/26/05 - 1/22/06	13F	\$148,081
TOTAL		\$1,158,536

3. The net Award Fee amount to be paid for the 2nd Award Fee Evaluation period is as follows:

2nd Period Earned Award Fee	\$1,380,403
Less Provisional Fee Payments	-\$1,158,536
Net Award Fee Amount to be Paid	<u>\$221,867</u>

--END OF MODIFICATION NUMBER 14--

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE OF PAGES 1 2
2. AMENDMENT/MODIFICATION NO. Fifteen (15)	3. EFFECTIVE DATE See Item 16C Below	4. REQUISITION/PURCHASE REQ. NO. See Item 12 Below	5. PROJECT NO. (If applicable)	
6. ISSUED BY National Aeronautic and Space Administration Goddard Space Flight Center Greenbelt, MD 20771		7. ADMINISTERED BY (If other than Item 6)	CODE	
8. NAME AND ADDRESS OF CONTRACTOR (No. Street, county, State and ZIP: Code) SGT, Inc. 7701 Greenbelt Road, Suite 400 Greenbelt, MD 20770			(4)	9A. AMENDMENT OF SOLICITATION NO.
				9B. DATED (SEE ITEM 11)
				10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C
				10B. DATED (SEE ITEM 13) February 5, 2005
CODE	FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning one (1) copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATA SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and data specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

Buyer Code/PGGrp: GEU PR No.: 4200149503 Amount: \$3,975,417 PPC: PF

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS,
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(4)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER Specify type of modification and authority) (Unilateral) FAR Clause 52.232-22, LIMITATION OF FUNDS (APR 1984)

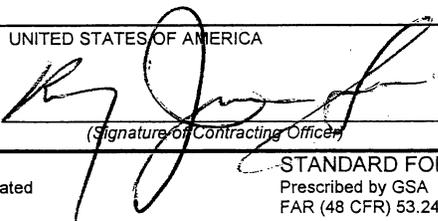
E. IMPORTANT: Contractor is not, is required to sign this document and return ___ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

This modification increased the funds allotted to the contract.

(Continued)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Ray James Sisneros	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
(Signature of person authorized to sign)		BY  (Signature of Contracting Officer)	APR 13 2006

Accordingly,

1. Revise Clause B.10, CONTRACT FUNDING (1852.232-81) (JUN 1990), to increase the funds allotted for payment of cost and fee as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
a. Estimated Cost	\$37,526,732	\$3,655,556	\$41,182,288
b. Award Fee	<u>3,283,589</u>	<u>319,861</u>	<u>3,603,450</u>
Total Funds	<u>\$40,810,321</u>	<u>\$3,975,417</u>	<u>\$44,785,738</u>

The allotment date for funds is changed to June 12, 2006.

--END OF MODIFICATION NUMBER 15--

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE OF PAGES 1 2
2. AMENDMENT/MODIFICATION NO. Sixteen (16)	3. EFFECTIVE DATE See Item 16C Below	4. REQUISITION/PURCHASE REQ. NO. See Item 12 Below	5. PROJECT NO. (If applicable)	
6. ISSUED BY National Aeronautic and Space Administration Goddard Space Flight Center Greenbelt, MD 20771		7. ADMINISTERED BY (If other than Item 6)	CODE	
8. NAME AND ADDRESS OF CONTRACTOR (No. Street, county, State and ZIP: Code) SGT, Inc. 7701 Greenbelt Road, Suite 400 Greenbelt, MD 20770			(4)	9A. AMENDMENT OF SOLICITATION NO.
				9B. DATED (SEE ITEM 11)
				10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C
				10B. DATED (SEE ITEM 13) February 5, 2005
CODE	FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning one (1) copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATA SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and data specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

Buyer Code/PGGrp: GEU PR No.: 4200153759 Amount: \$4,630,817 PPC: PF

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(4)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER Specify type of modification and authority) (Unilateral) FAR Clause 52.232-22, LIMITATION OF FUNDS (APR 1984)

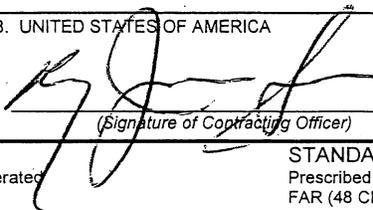
E. IMPORTANT: Contractor is not, is required to sign this document and return ___ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

This modification increased the funds allotted to the contract.

(Continued)

Except at provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Ray James Sisneros	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY  (Signature of Contracting Officer)	16C. DATE SIGNED MAY 15 2006
(Signature of person authorized to sign)			

Accordingly,

1. Revise Clause B.10, CONTRACT FUNDING (1852.232-81)
(JUN 1990), to increase the funds allotted for payment of
cost and fee as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
a. Estimated Cost	\$41,182,288	\$4,258,223	\$45,440,511
b. Award Fee	<u>3,603,450</u>	<u>372,594</u>	<u>3,976,044</u>
Total Funds	<u>\$44,785,738</u>	<u>\$4,630,817</u>	<u>\$49,416,555</u>

The allotment date for funds is changed to July 17, 2006.

--END OF MODIFICATION NUMBER 16--

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE	PAGE OF PAGES 1 2
2. AMENDMENT/MODIFICATION NO. Seventeen (17)	3. EFFECTIVE DATE See Item 16C Below	4. REQUISITION/PURCHASE REQ. NO. See Item 12 Below	5. PROJECT NO. (If applicable)		
6. ISSUED BY National Aeronautic and Space Administration Goddard Space Flight Center Greenbelt, MD 20771		CODE 210.3	7. ADMINISTERED BY (If other than Item 6)		CODE
8. NAME AND ADDRESS OF CONTRACTOR (No. Street, county, State and ZIP: Code) SGT, Inc. 7701 Greenbelt Road, Suite 400 Greenbelt, MD 20770				(4)	9A. AMENDMENT OF SOLICITATION NO.
					9B. DATED (SEE ITEM 11)
					10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C
					10B. DATED (SEE ITEM 13) February 5, 2005
CODE	FACILITY CODE				

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning one (1) copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATA SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and data specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

Buyer Code/PGGrp: GEU PR No.: 4200161792 Amount: \$5,651,496 PPC: PF

**13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS,
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

(4)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER Specify type of modification and authority) X (Unilateral) FAR Clause 52.232-22, LIMITATION OF FUNDS (APR 1984)

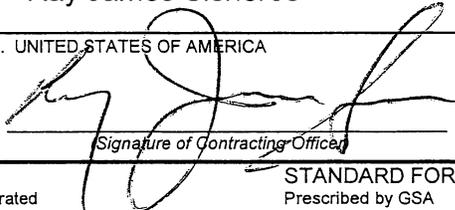
E. IMPORTANT: Contractor is not, is required to sign this document and return ___ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

This modification increased the funds allotted to the contract.

(Continued)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Ray James Sisneros	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY  Signature of Contracting Officer	16C. DATE SIGNED JUN 16 2006
_____ (Signature of person authorized to sign)			

Contract NNG05CA99C
Modification Number 17
Page 2 of 2

Accordingly,

1. Revise Clause B.10, CONTRACT FUNDING (1852.232-81)
(JUN 1990), to increase the funds allotted for payment of
cost and fee as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
a. Estimated Cost	\$45,440,511	\$5,196,778	\$50,637,289
b. Award Fee	<u>3,976,044</u>	<u>454,718</u>	<u>4,430,762</u>
Total Funds	<u>\$49,416,555</u>	<u>\$5,651,496</u>	<u>\$55,068,051</u>

The allotment date for funds is changed to September 5, 2006.

--END OF MODIFICATION NUMBER 17--

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. Eighteen (18)	3. EFFECTIVE DATE See Item 16C Below	4. REQUISITION/PURCHASE REQ. NO. See Item 12 Below		5. PROJECT NO. (If applicable)	
6. ISSUED BY National Aeronautic and Space Administration Goddard Space Flight Center Greenbelt, MD 20771		CODE 210.3	7. ADMINISTERED BY (If other than Item 6)		CODE
8. NAME AND ADDRESS OF CONTRACTOR (No. Street, county, State and ZIP: Code) SGT, Inc. 7701 Greenbelt Road, Suite 400 Greenbelt, MD 20770			(4)	9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
				10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C	
				10B. DATED (SEE ITEM 13) February 5, 2005	
CODE	FACILITY CODE				

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning one (1) copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATA SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and data specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

Buyer Code/PGGrp: GEU PR No.: 4200162183 Amount: \$5,063,277 PPC: PF

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(4)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER Specify type of modification and authority X (Unilateral) FAR Clause 52.232-22, LIMITATION OF FUNDS (APR 1984)

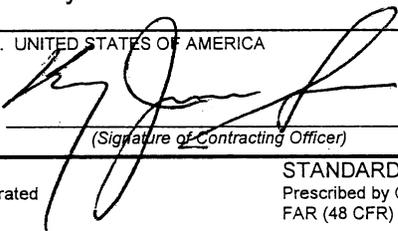
E. IMPORTANT: Contractor is not, is required to sign this document and return ___ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

This modification increased the funds allotted to the contract.

(Continued)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Ray James Sisneros	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY 	16C. DATE SIGNED JUL 17 2006
(Signature of person authorized to sign)		(Signature of Contracting Officer)	

Accordingly,

1. Revise Clause B.10, CONTRACT FUNDING (1852.232-81) (JUN 1990), to increase the funds allotted for payment of cost and fee as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
a. Estimated Cost	\$50,637,289	\$4,655,887	\$55,293,176
b. Award Fee	<u>4,430,762</u>	<u>407,390</u>	<u>4,838,152</u>
Total Funds	<u>\$55,068,051</u>	<u>\$5,063,277</u>	<u>\$60,131,328</u>

The allotment date for funds is changed to October 20, 2006.

--END OF MODIFICATION NUMBER 18--

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE OF PAGES 1 2
AMENDMENT/MODIFICATION NO. Nineteen (19)	3. EFFECTIVE DATE See Item 16C Below	4. REQUISITION/PURCHASE REQ. NO. See Item 12 Below	5. PROJECT NO. (If applicable)	
6. ISSUED BY National Aeronautic and Space Administration Goddard Space Flight Center Greenbelt, MD 20771		7. ADMINISTERED BY (If other than Item 6)	CODE	
8. NAME AND ADDRESS OF CONTRACTOR (No. Street, county, State and ZIP: Code) SGT, Inc. 7701 Greenbelt Road, Suite 400 Greenbelt, MD 20770			(4)	9A. AMENDMENT OF SOLICITATION NO.
				9B. DATED (SEE ITEM 11)
				10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C
				10B. DATED (SEE ITEM 13) February 5, 2005
CODE	FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning one (1) copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATA SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and data specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

Buyer Code/PGGrp: GEU See Number 2 (On Page 2 of 2) PPC: PF

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(4)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER Specify type of modification and authority (Unilateral) FAR Clause 52.232-22, LIMITATION OF FUNDS (APR 1984)

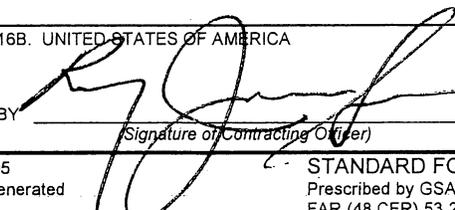
E. IMPORTANT: Contractor is not, is required to sign this document and return ___ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

This modification obligates \$2,707,353 and deobligates \$20,000, which results in an increase of \$2,687,353 to the total funds allotted to the contract.

(Continued)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Ray James Sisneros		
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
(Signature of person authorized to sign)		BY  (Signature of Contracting Officer)	AUG 18 2006

Accordingly,

1. Revise Clause B.10, CONTRACT FUNDING (1852.232-81) (JUN 1990), to increase the funds allotted for payment of cost and fee as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
a. Estimated Cost	\$55,293,176	\$2,471,129	\$57,764,305
b. Award Fee	<u>4,838,152</u>	<u>216,224</u>	<u>5,054,376</u>
Total Funds	<u>\$60,131,328</u>	<u>\$2,687,353</u>	<u>\$62,818,681</u>

The allotment date for funds is changed to November 8, 2006.

2. Revise the ACCOUNTING AND APPROPRIATION DATA as follows:

- a. Obligate and add the following:

<u>PR NO.</u>	<u>AMOUNT</u>
4200168177	\$1,040,989.69
4200168178	<u>1,666,363.31</u>

TOTAL OBLIGATED: \$2,707,353.00

- b. Deobligate and subtract the following:

<u>PR NO.</u>	<u>PLI#</u>	<u>ALI#</u>	<u>AMOUNT</u>
4200153759	28	1	<u>\$(20,000)</u>

(Originally obligated on Mod.16)

--END OF MODIFICATION NUMBER 19--

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE OF PAGES 1 2
2. AMENDMENT/MODIFICATION NO. Twenty (20)	3. EFFECTIVE DATE See Item 16C Below	4. REQUISITION/PURCHASE REQ. NO. See Item 12 Below	5. PROJECT NO. (If applicable)	
6. ISSUED BY National Aeronautic and Space Administration Goddard Space Flight Center Greenbelt, MD 20771		7. ADMINISTERED BY (If other than Item 6)	CODE	
8. NAME AND ADDRESS OF CONTRACTOR (No. Street, county, State and ZIP: Code) SGT, Inc. 7701 Greenbelt Road, Suite 400 Greenbelt, MD 20770			(4)	9A. AMENDMENT OF SOLICITATION NO.
				9B. DATED (SEE ITEM 11)
				10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C
				10B. DATED (SEE ITEM 13) February 5, 2005
CODE	FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:
 (a) By completing Items 8 and 15, and returning one (1) copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATA SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and data specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

Buyer Code/PGrp: GEU See Number 2 (On Page 2 of 2) PPC: PF

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(4)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER Specify type of modification and authority (Unilateral) FAR Clause 52.232-22, LIMITATION OF FUNDS (APR 1984)
	E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return ___ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

This modification obligates \$6,191,020 and deobligates \$40,000, which results in an increase of \$6,151,020 to the total funds allotted to the contract.

(Continued)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Ray James Sisneros
15B. CONTRACTOR/OFFEROR	16B. UNITED STATES OF AMERICA
15C. DATE SIGNED	16C. DATE SIGNED SEP 27 2006
(Signature of person authorized to sign)	BY (Signature of Contracting Officer)

Accordingly,

1. Revise Clause B.10, CONTRACT FUNDING (1852.232-81) (JUN 1990), to increase the funds allotted for payment of cost and fee as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
a. Estimated Cost	\$57,764,305	\$5,656,110	\$63,420,415
b. Award Fee	<u>5,054,376</u>	<u>494,910</u>	<u>5,549,286</u>
Total Funds	<u>\$62,818,681</u>	<u>\$6,151,020</u>	<u>\$68,969,701</u>

The allotment date for funds is changed to January 4, 2007.

2. Revise the ACCOUNTING AND APPROPRIATION DATA as follows:

- a. Obligate and add the following:

<u>PR NO.</u>	<u>AMOUNT</u>
4200176585	\$6,173,020
4200178849	<u>18,000</u>

TOTAL OBLIGATED: \$6,191,020

- b. Deobligate and subtract the following:

<u>PR NO.</u>	<u>PLI#</u>	<u>ALI#</u>	<u>AMOUNT</u>
4200149503	27	1	<u>\$ (40,000)</u>

(Originally obligated on Mod.15)

--END OF MODIFICATION NUMBER 20--

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE OF PAGES 1 2
2. AMENDMENT/MODIFICATION NO. Twenty-One (21)	3. EFFECTIVE DATE See Item 16C Below	4. REQUISITION/PURCHASE REQ. NO. See Item 12 Below	5. PROJECT NO. (If applicable)	
6. ISSUED BY National Aeronautic and Space Administration Goddard Space Flight Center Greenbelt, MD 20771		7. ADMINISTERED BY (If other than Item 6)	CODE	
8. NAME AND ADDRESS OF CONTRACTOR (No. Street, county, State and ZIP: Code) SGT, Inc. 7701 Greenbelt Road, Suite 400 Greenbelt, MD 20770			(4)	9A. AMENDMENT OF SOLICITATION NO.
				9B. DATED (SEE ITEM 11)
				10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C
				10B. DATED (SEE ITEM 13) February 5, 2005
CODE	FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning one (1) copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATA SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and data specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

Buyer Code/PGrp: GEU

N/A

PPC: PF

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS,
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

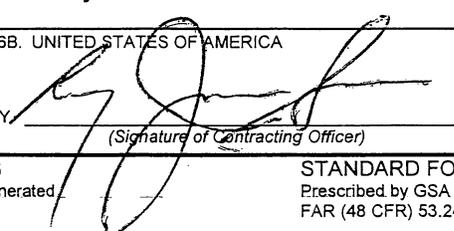
(4)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER Specify type of modification and authority) (Unilateral) Clause G.5, AWARD FEE FOR SERVICE CONTRACTS (1852.216-76)(JUNE 2000)
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return ___ copies to the issuing office.	

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

This modification issues the award fee determination for the third (3rd) award fee evaluation period (February 1, 2006 - July 31, 2006).

(Continued)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Ray James Sisneros		
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
(Signature of person authorized to sign)		BY  (Signature of Contracting Officer)	OCT 2 2006

Accordingly,

1. This modification recognizes the Award Fee earned for the third (3rd) evaluation period (February 1, 2006 - July 31, 2006). The contractor earned \$1,648,140 or 95.2% of the total available award fee of \$1,730,985.
2. Provisional award fee vouchers submitted for payment during the third (3rd) evaluation period are as follows:

DATE	FEE VOUCHER NO.	AMOUNT
1/23/06 - 2/19/06	14F	\$224,710
2/20/06 - 3/26/06	16F	\$243,102
3/27/06 - 4/23/06	17F	\$218,798
4/24/06 - 5/21/06	18F	\$219,621
5/22/06 - 6/25/06	19F	\$260,759
6/26/06 - 7/23/06	20F	\$218,875
TOTAL		\$1,385,865

3. The net Award Fee amount to be paid for the 3rd Award Fee Evaluation period is as follows:

3rd Period Earned Award Fee	\$1,648,140
Less Provisional Fee Payments	<u>-\$1,385,865</u>
Net Award Fee Amount to be Paid	<u>\$262,275</u>

--END OF MODIFICATION NUMBER 21--

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE 1 OF 2 PAGES
AMENDMENT/MODIFICATION NO. Twenty-Two (22)	3. EFFECTIVE DATE See Item 16C Below	4. REQUISITION/PURCHASE REQ. NO. See Item 12 Below	5. PROJECT NO. (If applicable)
6. ISSUED BY National Aeronautic and Space Administration Goddard Space Flight Center Greenbelt, MD 20771	CODE 210.3	7. ADMINISTERED BY (If other than Item 6)	CODE
8. NAME AND ADDRESS OF CONTRACTOR (No. Street, county, State and ZIP: Code) SGT, Inc. 7701 Greenbelt Road, Suite 400 Greenbelt, MD 20770		(4)	9A. AMENDMENT OF SOLICITATION NO.
			9B. DATED (SEE ITEM 11)
			10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C
			10B. DATED (SEE ITEM 13) February 5, 2005
CODE	FACILITY CODE		

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning one (1) copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATA SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and data specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

Buyer Code/PGrp: GEU PR No.: 4200182537 Amount: \$4,175,972 PPC: PF

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(4)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER Specify type of modification and authority (Unilateral) FAR Clause 52.232-22, LIMITATION OF FUNDS (APR 1984)

E. IMPORTANT: Contractor is not, is required to sign this document and return ___ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

This modification increased the funds allotted to the contract.

(Continued)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
		WILLIAM A. HATCHL CONTRACTING OFFICER	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
_____ (Signature of person authorized to sign)		BY  (Signature of Contracting Officer)	12/21/2006

Contract NNG05CA99C
Modification Number 22
Page 2 of 2

Accordingly,

1. Revise Clause B.10, CONTRACT FUNDING (1852.232-81)
(JUN 1990), to increase the funds allotted for payment of
cost and fee as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
a. Estimated Cost	\$63,420,415	\$3,839,974	\$67,260,389
b. Award Fee	<u>5,549,286</u>	<u>335,998</u>	<u>5,885,284</u>
Total Funds	<u>\$68,969,701</u>	<u>\$4,175,972</u>	<u>\$73,145,673</u>

The allotment date for funds is changed to January 29, 2007.

--END OF MODIFICATION NUMBER 22--

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE	PAGE 1 OF 4 PAGES
2. AMENDMENT/MODIFICATION NO. Twenty-Three (23)	3. EFFECTIVE DATE See Item 16C Below	4. REQUISITION/PURCHASE REQ. NO. See Item 12 Below	5. PROJECT NO. (If applicable)		
6. ISSUED BY National Aeronautic and Space Administration Goddard Space Flight Center Greenbelt, MD 20771		7. ADMINISTERED BY (If other than Item 6)	CODE		
8. NAME AND ADDRESS OF CONTRACTOR (No. Street, county, State and ZIP: Code) SGT, Inc. 7701 Greenbelt Road, Suite 400 Greenbelt, MD 20770				(4)	9A. AMENDMENT OF SOLICITATION NO.
					9B. DATED (SEE ITEM 11)
					10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C
					10B. DATED (SEE ITEM 13) February 5, 2005
CODE	FACILITY CODE				

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:
 (a) By completing Items 8 and 15, and returning one (1) copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATA SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and data specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
 Buyer Code/PGrp: GJF PR No.: N/A Amount: N/A PPC: PF

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(4)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
<input checked="" type="checkbox"/>	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 52.243-2 -- Changes -- Cost-Reimbursement. (AUG 1987) -- Alternate II (APR 1984)
	D. OTHER Specify type of modification and authority

E. IMPORTANT: Contractor is not, is required to sign this document and return 3 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this no-cost supplemental agreement is to incorporate the new HSPD-12 Personal Identify Verification (PIV) of Contractor Personnel requirements into the contract.

Accordingly:

(Continued)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Brian J. Bolger Manager, Contracts and Subcontracts		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Ray James Sisneros	
15B. CONTRACTOR/OFFEROR Brian Bolger (Signature of person authorized to sign)	15C. DATE SIGNED 11/17/07	16B. UNITED STATES OF AMERICA BY [Signature] (Signature of Contracting Officer)	16C. DATE SIGNED JAN 17 2007

1) H.4 – ONSITE CONTRACTOR PERSONNEL – IDENTIFICATION, REPORTING, AND CHECKOUT PROCEDURES (GSFC 52.204-99)(AUG 2003) is hereby deleted in its entirety and replaced with the following:

H.4 - CONTRACTOR PERSONNEL—IDENTIFICATION, ONSITE REPORTING, AND CHECKOUT PROCEDURES--MODIFICATIONS (GSFC 52.204-99) (DEC 2006)

(a) In accordance with FAR 52.204-9, Personal Identity Verification (PIV) of Contractor Personnel, the Contractor, upon receipt of a contract-specific PIV employee listing from GSFC Security Division, shall update the listing in accordance with the Step 1 letter procedures described in Attachment I, Personal Identity Verification Card Issuance Procedures. The Contractor shall provide the required information for each contract employee (prime and subcontractor) who will have physical access to a NASA-controlled facility (also referred to as "onsite"). Following submission of the updated/annotated listing to the Contracting Officer's Technical Representative (COTR) and Contracting Officer, the Contractor shall wait for a PIV card scheduling notice from the GSFC Security Division to proceed with Steps 2 through 6 of Attachment I. The Contractor must apply for permanent NASA/GSFC PIV cards for those contract employees who will be employed by the Contractor onsite for at least six months. The GSFC Security Division will consider permanent PIV cards for other employees of the Contractor on a case by case basis, such as employees that are not resident onsite, but must frequently visit. In the future, upon written notice from the Contracting Officer, the Contractor shall proceed with Step 7 of Attachment I for PIV credentials for all onsite contract personnel with PIV cards. In addition, upon future written notice from the Contracting Officer, the Contractor shall follow Steps 1 through 7 in Attachment I for each offsite contract employee (prime and subcontractor) who require remote access to a NASA information system for contract performance.

(b) The Contractor shall notify the GSFC Security Division, Code 240, Attention: Locator and Information Tracking System (LISTS) Manager, and the Contracting Officer's Technical Representative (COTR) of the contractor's designated LIST representative within 15 calendar days after award of this contract. The GSFC maintained LIST contains work and home location and contact information for personnel that have permanent NASA/GSFC PIV cards. The Contractor may contact the LIST Manager, Tel 301-286-2306 for assistance regarding LISTs.

(c) For each contract employee, the Contractor must complete and submit a GSFC Form 24-27, "LISTS Form. The form is available from GSFC Stores Stock or online via NASA and GSFC systems <<http://gdms.gsfc.nasa.gov/gdmsnew/home.jsp>>. The GSFC Form 24-27 must be signed by the COTR or the Contracting Officer. The COTR will resolve any housing or access issues, review the forms for accuracy and completeness, and return the signed forms to the Contractor. The Contractor shall forward the form(s) to the GSFC Security Division, Code 240, for subsequent data entry into the LISTs.

(d) The Contractor shall submit an annotated LISTs Report each month. The GSFC LISTs Manager will furnish a LISTs print-out to the Contractor no later than the end of each month. The Contractor shall annotate this provided report monthly to correct and update the information as follows:

- (1) Draw a line through the names of employees who are no longer employed by the contractor or that no longer work onsite under the contract, and;
- (2) Make handwritten changes to any other incorrect data.

The annotated LISTs Report shall be separately submitted to the GSFC Security Division, Code 240, Attention: LISTs Manager, and to the COTR by the 10th calendar day of the month.

(e) The Contractor shall ensure that all personnel who have NASA/GSFC issued PIV cards, keys or other property who leave its employment or that no longer work onsite, process out through the GSFC Security Division, Code 240. Employees must return all GSFC issued identification and any Government property no later than the last day of their employment. The Contractor shall establish appropriate procedures and controls to ensure this is accomplished. Failure to comply may result in

the exercise of Government rights to limit and control access to Government premises, including denial of access and invalidation of NASA issued PIV cards and identification.

(End of clause)

2) H.5 GOVERNMENT PREMISES – PHYSICAL ACCESS AND COMPLIANCE WITH PROCEDURES (GSFC 52.211-95)(DEC 2003) is hereby deleted in its entirety and is replaced with the following:

H.5 - GOVERNMENT PREMISES—PHYSICAL ACCESS AND COMPLIANCE WITH PROCEDURES (GSFC 52.211-95) (SEPT 2006)

(a)(1) The Contractor must apply for permanent NASA/GSFC Personal Identity Verification (PIV) cards (badges) for those employees that will be employed by the Contractor and subcontractors and that will be resident for at least six months at GSFC or at locations controlled by GSFC, such as GSFC leased space. Other personnel may be issued a temporary badge. All personnel must conspicuously display the GSFC PIV card at, or above, the waistline. Refer to GSFC clause 52.204-99, "Contractor Personnel—Identification, Onsite Reporting, and Checkout Procedures" for permanent PIV card issuance procedures.

(2) Visits by foreign nationals are restricted and must be necessary for the performance of the contract and concurred with by the Contracting Officer or by the Contracting Officer's Technical Representative. Approval of such visits must be approved in advance in accordance with GPR 1600.1.

(3) Access to the GSFC may be changed or adjusted in response to threat conditions or special situations.

(b) While on Government premises, the Contractor shall comply with requirements governing the conduct of personnel and the operation of the facility. These requirements are set forth in NASA-wide or installation directives, procedures, handbooks and announcements. The following cover many of the requirements:

- (1) Coordinated Harassment/Discrimination Inquiry Guidelines
<<http://internal.gsfc.nasa.gov/directives/security.html>>
- (2) GMI 1152.9, Facilities Coordination Committee
- (3) GPR 1600.1, GSFC Security Manual
- (4) GPR 1700.1, Occupational Safety Program
- (5) GPR 1700.2, Chemical Hygiene Plan
- (6) GPR 1800.1, GSFC Smoking Guidelines
- (7) GPR 1800.2, Occupational Health Program
- (8) GPR 1860.1, Ionizing Radiation Protection
- (9) GPR 1860.2, Laser Radiation Protection
- (10) GPR 1860.3, Radio Frequency Radiation Safety
- (11) GPR 1860.4, Ultraviolet and High Intensity Light Radiation Protection
- (12) GPR 2570.1, Radio Frequency Equipment Licensing
- (13) GPD 8500.1, Environmental Program Management
- (14) GPR 8710.2, Emergency Preparedness Program for Greenbelt
- (15) GPD 8715.1, GSFC Safety Policy
- (16) GPR 8715.1, Processing of NASA Safety Reporting System (NSRS) Incident Reports

Copies of the current issuances may be obtained at <<http://gdms.gsfc.nasa.gov>> or from the Contracting Officer. The above list may be modified by the Contracting Officer to include additional issuances pertaining to the conduct of personnel and the operation of the facility.

(c) The Contractor may not use official Government mail (indicia or "eagle" mail). Contractors found in violation could be liable for a fine of \$300 per piece of indicia mail used. However, the Contractor is allowed to use internal GSFC mail to the extent necessary for purposes of the contract.

(End of clause)

3) In Section H, add the following Clause H.11 - PERSONAL IDENTITY VERIFICATION OF CONTRACTOR PERSONNEL (52.204-9) (JAN 2006)

H.11 - Personal Identity Verification of Contractor Personnel (52.204-9) (JAN 2006)

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

(b) The Contractor shall insert this clause in all subcontracts when the subcontractor is required to have physical access to a federally-controlled facility or access to a Federal information system.

(End of clause)

4) Clause J.1 LIST OF ATTACHMENTS (GSFC 52.211-101) (OCT 1988) is hereby revised to include the following:

<u>Attachment</u>	<u>Description</u>	<u>Date</u>	<u>No. of Pages</u>
I	Personal Identity Verification Card Issuance Procedures	12/2006	4

This modification includes full and complete equitable adjustment for the above described changes. The Contractor hereby releases the Government from any liability under this contract for equitable adjustments attributable to such facts or circumstances giving rise to the aforementioned changes.

--END OF MODIFICATION NUMBER 23--

PIV Card Issuance Procedures in accordance with FAR clause 52.204-9, Personal Identity Verification of Contractor Personnel

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

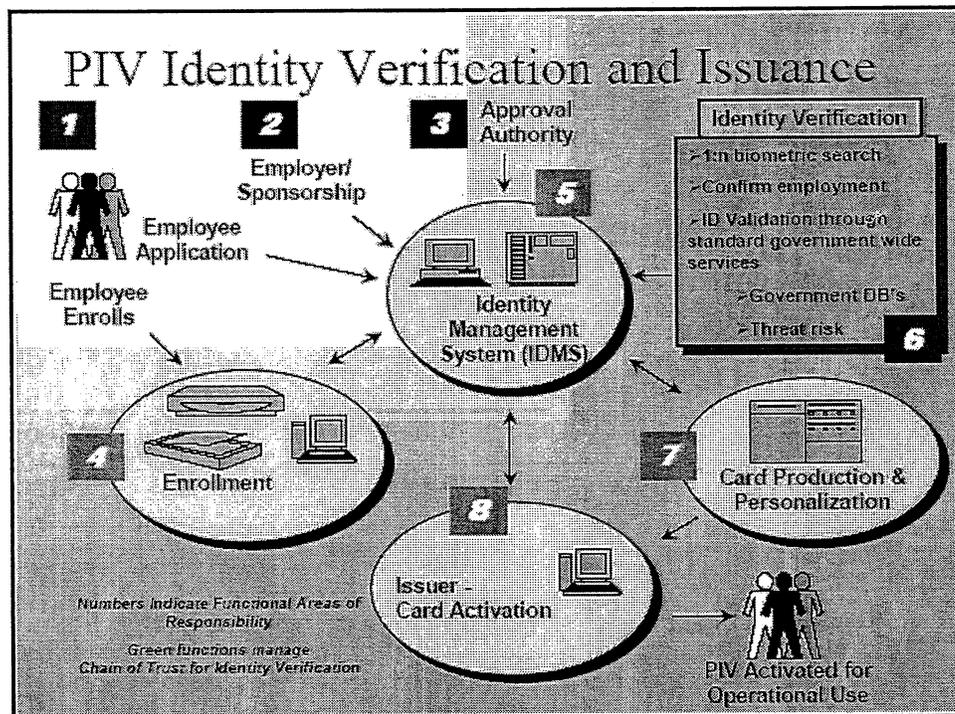


Figure A-1, FIPS 201, Appendix A

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

Step 1:

The Contractor's Corporate Security Officer (CSO), Program Manager (PM), or Facility Security Officer (FSO), submits a formal letter that provides a list of contract employees (applicant) names requesting access to the NASA Contracting Officer's Technical Representative (COTR). In the case of a foreign national applicant, approval through the NASA Foreign National Management System (NFMMS) must be obtained for the visit or assignment before any processing for a PIV credential can take place. Further, if the foreign national is not under a contract where a COTR has been officially designated, the foreign national will provide the information directly to their visit/assignment host, and the host sponsor will fulfill the duties of the COTR mentioned herein. In each case, the letter shall provide notification of the contract or foreign national employee's (hereafter the "applicant") full name (first, middle and last), social security number (SSN) or NASA Foreign National Management System Visitor Number if the foreign national does not have a SSN, and date of birth. If the contract employee has a current satisfactorily

completed National Agency Check with Inquiries (NACI) or an equivalent or higher degree of background investigation, the letter shall indicate the type of investigation, the agency completing the investigation, and date the investigation was completed. Also, the letter must specify the risk/sensitivity level associated with the position in which each applicant will be working (NPR 1600.1, §4.5 is germane) Further, the letter shall also acknowledge that contract employees may be denied access to NASA information or information systems based on an unsatisfactory background investigation/adjudication. .

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

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

Step 2:

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

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

Step 3:

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

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

Step 4:

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

Step 5:

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

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

Step 6:

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

Step 7:

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

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

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

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

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

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

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

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE OF PAGES 1 2
2. AMENDMENT/MODIFICATION NO. Twenty-Four (24)	3. EFFECTIVE DATE See Item 16C Below	4. REQUISITION/PURCHASE REQ. NO. See Item 12 Below	5. PROJECT NO. (If applicable)	
6. ISSUED BY National Aeronautic and Space Administration Goddard Space Flight Center Greenbelt, MD 20771		CODE 210.3	7. ADMINISTERED BY (If other than Item 6)	
8. NAME AND ADDRESS OF CONTRACTOR (No. Street, county, State and ZIP: Code) SGT, Inc. 7701 Greenbelt Road, Suite 400 Greenbelt, MD 20770			(4)	9A. AMENDMENT OF SOLICITATION NO.
				9B. DATED (SEE ITEM 11)
				10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C
				10B. DATED (SEE ITEM 13) February 5, 2005
CODE	FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning one (1) copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATA SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and data specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

Buyer Code/PGrp: GEU

N/A

PPC: PF

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(4)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR Clause 52.243-2, CHANGES--COST-REIMBURSEMENT (AUG 1987)--ALTERNATE II (APR 1984)
	D. OTHER Specify type of modification and authority

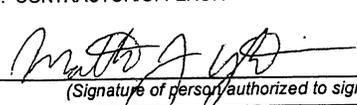
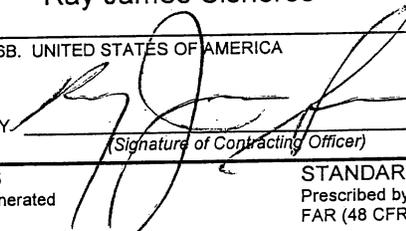
E. IMPORTANT: Contractor is not, is required to sign this document and return 3 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

This modification is a no-cost supplemental agreement to revise Attachment A, Statement of Work (SOW), to add flight fabrication to the contract.

(Continued)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Matthew Yetman / VP & CFO	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Ray James Sisneros	
15B. CONTRACTOR/OFFEROR  (Signature of person/authorized to sign)	15C. DATE SIGNED 1/18/07	16B. UNITED STATES OF AMERICA BY  (Signature of Contracting Officer)
		16C. DATE SIGNED JAN 18 2007

Accordingly,

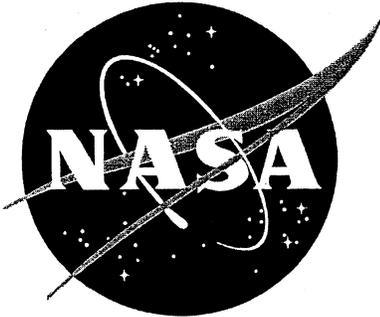
1. Clause J.1 LIST OF ATTACHMENTS (GSFC 52.211-101) (OCT 1988) is hereby revised to delete Attachment A in its entirety and replace with the following:

<u>Attachment</u>	<u>Description</u>	<u>Date</u>	<u>No. of Pages</u>
A	Statement of Work (SOW)	1/2007	39

This modification includes full and complete equitable adjustment for the above described changes. The Contractor hereby releases the Government from any liability under this contract for equitable adjustments attributable to such facts or circumstances giving rise to the aforementioned changes.

--END OF MODIFICATION NUMBER 24--

Attachment A
NNG05CA99C
1/2007



NASA
GODDARD SPACE FLIGHT CENTER

STATEMENT OF WORK
FOR
MULTIDISCIPLINARY
ENGINEERING AND TECHNOLOGY SERVICES (METS)
FOR THE
APPLIED ENGINEERING AND
TECHNOLOGY DIRECTORATE (AETD)

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INTRODUCTION

The National Aeronautics and Space Administration (NASA) was established to plan, direct, and conduct aeronautical and space activities for peaceful purposes for the benefit of all mankind. The operational aspects of NASA's work are divided among field installations around the country and involve research and development activities under the responsibility of six technical program offices at NASA Headquarters.

The Goddard Space Flight Center (GSFC) is located in Greenbelt, Maryland and reports to the Office of Earth Science. The GSFC is chartered to expand the knowledge of the earth and its environment, the solar system, and the universe through observations from space. To this end, the GSFC's primary emphasis is in scientific investigation, in the development and operation of space systems, and in the advancement of essential technologies. In accomplishing this responsibility, the GSFC has undertaken a broad program of scientific research, both theoretical and experimental, in the study of space phenomena and earth sciences. The program ranges from basic research to flight experiment development, and from mission operations to data analysis.

Within the GSFC, the Applied Engineering Technology Directorate (AETD) plans, organizes, and conducts a broad range of technical research and development activities in support of science applications. The AETD is responsible for providing engineering expertise and support in the formulation, design, development, non-flight fabrication, integration, test, verification, and operation of components, subsystems, systems, science instruments, and complete spacecraft for multiple projects. The specific components, subsystems, systems, and science instruments are ultimately integrated into the spacecraft to form a science observatory. It is these observatories that are launched to fulfill the mission of the GSFC. The AETD comprises five engineering divisions: the Mechanical Systems Division (MSD), the Information Systems Division (ISD), the Instrument Systems and Technology Division (ISTD), the Electrical Engineering Division (EED), and the Mission Engineering and Systems Analysis Division (MESA).

To fulfill these responsibilities and ultimately achieve their missions, the AETD must acquire a wide range of engineering services in support of its divisions to implement the GSFC mission.

SCOPE OF WORK

The purpose of this contract is to acquire engineering and related services to MESA, ISD, ISTD, EED, and related organizations, as required, for the formulation, design, development, non-flight and flight fabrication, integration, testing, verification, and operations of space flight and ground system hardware and software, including development and validation of new technologies to enable future space and science missions. The emphasis in engineering services will be in the areas of systems engineering, software engineering, information technology, and Guidance Navigation and Control (GN&C) services.

To this end, the contractor shall provide on/off-site multidisciplinary engineering services, pursuant to task assignments issued by the Contracting Officer. These services shall include the personnel, facilities, and materials (unless otherwise provided by the Government) to accomplish the tasks.

Tasks assignments will be issued to perform services in all aspects of mission and instrument development and implementation for components, subsystems, systems, science instruments, observatories, launch, ground system, spacecraft, and suborbital craft (e.g., aircraft, sounding rockets, UAVs, balloons), including attached shuttle or Space Station, payloads, free-flying spacecraft, suborbital craft payloads, and Space Station payloads as well as ground support equipment, simulators, non-flight models, prototypes, and flight hardware; candidate, feasibility, and systems definition studies; project management; systems engineering; analysis; preliminary design; detailed design; non-flight and flight fabrication; assembly; integration; test and verification; test instrumentation; data systems management; launch and post-launch operations; research and technology unique to system development; documentation; maintenance; sustaining engineering; configuration management; mission assurance; architectural trades, performance, cost, risk assessment, and systems safety.

I. GENERAL RESPONSIBILITIES

The Contractor's responsibilities shall include the management of personnel, timely and effective implementation of task assignments, control and monitoring of contract and subcontract performance, management of scheduled deliveries, and timely and effective reporting to the Government. These responsibilities shall also include efficient cost management methods as well as procedures to ensure that the Government is aware of task assignment status and progress achieved.

The Contractor shall be responsible for ensuring that all contractor and subcontractor personnel engaged in performance of this Statement of Work have appropriate qualifications, knowledge, and certification to perform work in accordance with the task assignments.

II. PERFORMANCE MEASUREMENT

Performance-based statements of work/specifications will be used for establishing contract requirements. Therefore, each task assignment issued by the Contracting Officer will include, as a minimum, the following:

1. Statement of Work, including the requirements to be met, the standard(s) of performance/quality of work, and required deliverables (or other output)
2. Performance Specification (if applicable)
3. Applicable Documents (if required)
4. Period of Performance
5. Incentive Structure
6. Surveillance Plan

The Contractor shall be required to adhere to the performance measurements detailed in each task assignment.

III. TASKS

Services shall be required in one or more of the areas described in the scope above for any given task assignment. Services within the scope of this Statement of Work and specified in task assignments shall include, but not be limited to, the specific services delineated in the following sections.

FUNCTION 1 – PRE-FORMULATION AND FORMULATION SERVICES: CANDIDATE, PRELIMINARY ANALYSIS, AND SYSTEMS DEFINITION STUDIES

The Contractor shall provide engineering services for mission concept development that integrate the aspects of flight systems, ground systems, instrument systems, and launch systems.

In general, the Contractor shall:

1. Produce pre-formulation and formulation phase study inputs for spacecraft, suborbital craft, instruments, and ground systems
2. Develop mission needs (mission objectives, measurement concept, and instrument concept) and mission design (mission requirements, architectural design, and operations concept).
3. Develop preliminary, relative cost and schedule estimates based on design alternatives, and identify and assess high-risk elements in designs
4. Document the history of design, qualification, flight experience, and modifications where existing components or subsystems are to be utilized
5. Identify interface requirements for pre-launch, launch, on-orbit servicing, or retrieval of flight hardware
6. Define interface engineering and management requirements
7. Prepare mission systems and operations documentation
8. Prepare requirements and specification packages that conform to applicable standards defined within task statement
9. Identify interfaces and prepare interface control documents
10. Provide technical inputs for problem-solving and/or design inputs in selected spacecraft, instruments, suborbital craft, ground system, and data disciplines
11. Analyze various reports (i.e., progress reports) delivered by the GSFC mission contractor(s) and provide recommendations to the project
12. Provide liaison and coordination services for project activities

13. Provide design services that include performance of preliminary design (leading to a Preliminary Design Review) of the subsystems, components, and assemblies that comprise the instrument/spacecraft/platform/launch system/ground system

A. Candidate Study Services

The Contractor shall provide study services for the conceptual design and development of subsystems and systems, thereby participating in the identification of scientific objectives, mission requirements and technical concepts. Study products produced during this phase shall include, but not limited to:

1. Strategic technology planning
2. Integration of joint missions, partnerships, and other collaborative efforts
3. Research/science/technology/cost trade studies
4. Candidate operations concepts
5. Candidate system architectures
6. Cost, schedule, and risk estimates
7. Research and technology unique to system development
8. Customer development support and outreach

B. Preliminary Analysis Study Services

The Contractor shall provide preliminary analysis study services focusing on analyzing mission requirements and establishing mission architectures in order to demonstrate that a credible, feasible design(s) exist(s). The Contractor shall develop top-level requirements and evaluation criteria, identify alternative operations/logistics concepts, and identify project constraints and system boundaries. Study products produced during this phase shall include, but not limited to:

1. **Analysis Services Specific Tasks** – The Contractor shall perform analysis services tasks, including but not limited to:
 - a. Preliminary system design of a feasible, but not necessarily optimum configuration
 - b. Assessment of technical risks, including identification of technical problems and the criticality of their solution to follow-on efforts, identification of those problems currently being addressed, and a judgment of effort and time likely to be necessary to find a practical solution
 - c. Identification of all recommended systems characteristics, including launch and control capability, tracking and data acquisition, facility considerations, and institutional base activities

- d. Implementation plans, which include the identification of all major systems and subsystems
 - e. Preparation of the system design that forms the basis for implementing system development (hardware or software)
 - f. Provide alternative design concepts including feasibility and risk studies, cost and schedule estimates, and advanced technology requirements
 - g. Prepare for and support the appropriate Phase A project and technical reviews and prepare Phase A project documentation as appropriate (see the NASA Systems Engineering Handbook, SP-6105, June 1995)
2. **Documentation Specific Tasks** – The Contractor shall document all results from the study in a Feasibility Study Report.

C. System Definition Study Services

The Contractor shall provide system definition and preliminary design study services to establish (and evolve) the project baseline(s). These shall include:

1. **Analysis Services Specific Tasks** – The Contractor shall perform system definition analysis services specific tasks, including:
 - a. Defining system requirements, system budgets (e.g., mass, power, memory), error budgets, system/subsystem requirements, software requirements, ground support equipment requirements, and integration and test requirements
 - b. Identifying all recommended system characteristics, defining the subsystem components and assemblies, identifying the required complement of flight and ground support equipment, specifying internal and external interfaces, and verifying that the recommended design approach's critical subsystems and components are within the state-of-the-art
 - c. Providing a formal flow down of project-level performance requirements to a complete set of system and subsystem design specifications for both flight and ground elements. Phase B baseline information shall be developed including system requirements and verification requirements matrices, system architecture and work breakdown structures, operations concepts, "design-to" specifications at all levels, and project plans including schedule, resources, and acquisition strategies
 - d. Performing risk assessments of all critical elements, describing the risks and control methods. The knowledge and use of Probability Risk Assessment (PRA), Failure Modes and Effects Analysis (FMEA) and Fault Tree Analysis (FTA) is required.
 - e. Preparing the system design that shall form the basis for implementing/developing the system (hardware or software); defining the tasks and sequence of tasks that shall be performed to provide orderly technical development, design, review,

interface, test, and integration of the system; and providing the required plans (modeling, analysis, and simulation; configuration; logistics; information; software; verification; integration and test, etc.) for the effort

- f. Describing and documenting integrated mission architecture
- g. Preparing for and supporting the appropriate Phase B project and technical reviews and prepare Phase B project documentation as appropriate (see the NASA Systems Engineering Handbook, SP-6105, June 1995).

2. **Documentation Specific Tasks** – The Contractor shall document all results from the study effort in a Definition Study Report.

FUNCTION 2 – IMPLEMENTATION PHASE SERVICES - MULTI-DISCIPLINARY FUNCTIONS

The Contractor shall provide services to design, develop, fabricate, unit test, system integrate, verify, integrate, deploy, and operate hardware and software on spacecraft, platform, and/or payload as defined by this Statement of Work. The implementation phase services shall include:

A. Multi-disciplinary Analyses and Design Services

The Contractor shall provide analytical and detailed design support that includes multi-disciplinary system analyses and trade studies involving, but not limited to, mechanical, thermal, optics (including radiometrics and stray light), contamination, control, guidance, navigation, detector, electrical, electronic, and software aspects of flight and ground systems, including associated ground support equipment. Services shall include the definition, development and use of models and simulations to study and quantify system performance and to conduct system trade studies. This includes, but is not limited to, such specific efforts as EMI/EMC analysis, environmental testing, magnetics testing, thermal vacuum testing, systems performance error budgets, power and weight budgeting and tracking, microphonics analyses, fracture control analyses, microwave communication system analyses (including link margin availability), controls-structures analyses, control-structural-thermal-optical analyses, instrument system analyses (including system sensitivities), computer performance analyses (including CPU, memory, simulations, etc), and systems reviews of selected critical subsystems. Services shall also include the development of measurement tools and models, analysis of measurement data, defect tracking, process improvement, cost estimation of hardware and software systems, modeling of organizational processes, electrical parts analyses, electrical board layouts, thermal analysis, non-flight electrical board fabrication, mechanical enclosure design, and technical writing documentation.

The Contractor shall provide design services that include performance of detailed (leading to a Critical Design Review) design of the subsystems, components and assemblies that comprise the instrument/spacecraft/platform. This effort includes hardware and software (flight and ground) as well as ground support equipment (electrical, thermal, contamination, mechanical, and cryogenic). Documentation, including technical reports, drawings, schematics, block diagrams, layouts, parts and materials list, and equipment lists, shall be provided.

Documentation Specific Tasks – The Contractor shall document all results from the modeling, simulations, analyses, and design effort and shall provide supporting materials and documentation.

B. Fabrication, Assembly and Testing Services

The Contractor shall provide non-flight and flight fabrication, assembly and testing services, including breadboards, engineering models, non-flight models, and flight hardware including:

1. **Planning Specific Tasks** – The Contractor shall provide planning services, including:
 - a. Implementation and maintenance of overall production and quality engineering plans
 - b. Manufacturing, integration and test plans, describing sequences, qualification and acceptance test levels, and facilities needed to accomplish assembly, integration, alignment, testing, quality control, and checkout
2. **Non-Flight and Flight Fabrication Specific Tasks** – The Contractor shall provide non-flight and flight fabrication services, including:
 - a. Optical, mechanical, detector, electrical/electronics, and microwave, including antennas. Mechanical systems shall include pressurized propulsion systems containing hazardous fluids.
 - b. Ground support equipment, including mechanical and electrical, and optical
 - c. Laboratory control systems
 - d. Wiring harnesses
 - e. Special parts
 - f. Surface mount printed circuit boards, including leadless chip carriers and chip-on-board techniques
3. **Non-Flight and Flight Assembly Specific Tasks** – The Contractor shall provide assembly services, including:
 - a. Optical, mechanical, detector, electrical/electronics, and microwave, including antennas mechanical systems shall include pressurized propulsion systems containing hazardous fluids.
 - b. Ground support equipment including mechanical, electrical, and optical
 - c. Test equipment and fixtures
 - d. Wiring harnesses

C. Integration, Test, and Verification Services

The Contractor shall provide engineering and test-conductor services that include integrating and verifying the flight, ground systems, and science data system, preparing and executing test procedures, documenting all non-conformances and dispositions, providing operating manuals, reference documents, training, and launch site support.

1. **Integration, Test and Verification Specific Tasks** – The Contractor shall provide integration, test, and verification services including mission systems engineering, systems engineering, independent software verification and validation, acceptance testing, regression testing, software support and system-level support of products during box, instrument, spacecraft and observatory I&T including:
 - a. Major program reviews
 - b. Space flight subsystems
 - c. Space flight instruments
 - d. Space flight payloads
 - e. Suborbital craft instruments
 - f. Ground instrumentation
 - g. Ground support systems
 - h. Science data systems/applications
 - i. Spacecraft and science operations control rooms
 - j. Suborbital craft subsystems

D. Laboratory and Test Instrumentation Services

The Contractor shall provide the services necessary for conceptualization, prototyping, system engineering, design, development, integration, test, sustaining engineering, maintenance and utilization of laboratory and test instrumentation.

E. Launch and Post-Launch Operations Support

The Contractor shall supply launch and post-launch mission systems level, systems level, software, and ground systems support services for ELV, NSTS, sounding rocket, balloon, and aircraft-based missions, including:

1. **Launch Site Preparation Specific Tasks** – The Contractor shall provide system services at the launch site, including:
 - a. Supports to payload system and its support equipment
 - b. Interfaces to the mission operations control centers
 - c. Technical services to facilitate interfacing with the launch site organization
 - d. Development of launch site support requirements
 - e. Development of launch site plans and procedures
 - f. Assistance in shipment of the flight hardware and associated support equipment to and from the launch site

2. **Launch Operations Specific Tasks** – The Contractor shall provide launch and post-launch operations services for ELV, NSTS, sounding rocket, balloon, and aircraft-based missions, including:
 - a. Assuring flight readiness of the payload and observatory system
 - b. Pre-launch testing of the payload and observatory system
 - c. Operation of associated ground support equipment
 - d. Services to the launch vehicle team for payload integration to the vehicle at the launch facility
3. **Mission Operation Support Specific Tasks** – The Contractor shall provide mission operation engineering services, including services for the payload and for carrier and flight support system during mission operations.
4. **Landing and De-Integration Specific Tasks** – The Contractor shall provide landing and de-integration services, including services at the landing site for payload de-integration, post-flight testing, and payload shipment. This shall include suborbital craft and payloads recovery.
5. **Refurbishment of Recovered Systems Specific Tasks** – The Contractor shall provide refurbishment services for recovered flight systems.
6. **Data Reduction Specific Tasks** – The Contractor shall provide data reduction services, including:
 - a. Compiling and analyzing systems performance data during and after the mission
 - b. Reviewing and contributing to the implementation of proposed science data processing systems to ensure timely flow of accurate science data sets
 - c. Reviewing the design and implementation of information data systems to identify sources of science data for investigative purposes, including existing databases and newly acquired data requirements to be scheduled
 - d. Analyzing the development of data transfer systems and data status accounting systems for multiple science data processing centers
 - e. Integrating activities with the Information Systems Division (ISD)
7. **Documentation Specific Tasks** – The Contractor shall provide post-flight summary reports, analyzing the performance of the system during flight.

F. Mission Assurance and Systems Safety Services

For all levels of flight hardware and software provided by the Contractor and specified by this Statement of Work, the Contractor shall establish and maintain a mission assurance program commensurate with mission requirements as specified by the task. The mission assurance

program shall incorporate a system safety program which meets the requirements of NSTS 1700.7B, "Safety Policy and Requirements for Payloads Using the Space Transportation System" and 2.45 SPW S-100/KHB 1700.7B, "Space Shuttle Payload Ground Safety Handbook" for shuttle missions. For ELV missions at ETR or WTR, the system safety program shall meet the requirements of EWR 127-1, "Eastern and Western Range Safety Requirements."

The contractor shall establish and maintain practices, procedures, and processes that are ISO 9001 compliant.

1. **Performance Assurance Specific Tasks** – The Contractor shall provide performance assurance services, including:
 - a. Reviewing payload designs to assure their compliance with performance assurance, reliability, and safety specifications
 - b. Developing, analyzing, and monitoring performance assurance, reliability, system safety plans, and procedures, non-flight and flight fabrication assembly, integration and test, verification, and launch support
 - c. Analyzing basic plans for system safety, contamination control, integration, and testing of subsystems and systems

2. **Safety Specific Tasks** – The Contractor shall provide safety services which conform to the system safety/mission assurance program, including:
 - a. Establishing and documenting a systems safety plan in concert with the appropriate launch vehicle and NASA safety policy
 - b. Conducting and assessing system safety analyses for flight designs and launch/retrieval operations to satisfy NASA safety and reliability requirements
 - c. Analyzing design changes related to minimizing hazard levels
 - d. Participating in system safety reviews
 - e. Reviewing the proposed systems design to ensure that proper considerations are given to safety-critical areas, and that safety problems exposed in prior analyses, testing, and operational use of instruments and subsystems are corrected
 - f. Conducting project test/validation programs for flight and critical ground systems software
 - g. Preparing the Safety Data Package, including writing and editing
 - h. Performing hazards analysis of flight system, shuttle interface equipment, and ground support equipment
 - i. Participating in required inspection/testing to fulfill safety data requirements
 - j. Coordinating with the GSFC safety officer and participating in formal safety reviews
 - k. Preparing final safety data packages

G. Configuration Management Services

The Contractor shall provide overall management and oversight of the Configuration Management (CM), Documentation Management (DM), and Quality Control Management (QCM) disciplines throughout the life cycle of flight hardware and software provided within the scope of this Statement of Work. Each discipline shall require the development, establishment, and implementation of procedures and processes and establishment of mechanisms and tools for consistency.

The Contractor shall support the planning, identification of processes, and leading GSFC Project efforts in these disciplines. This support shall also include the necessary planning and associated process development to assist the GSFC Project in meeting conformance requirements to NASA procedures and guidelines as well as the ISO standards

The main CM/DM/QCM functions shall include:

- Configuration identification, configuration control, configuration accounting and reporting
- configuration verification and configuration auditing
- implementation and maintenance of a DM system

The Contractor shall be responsible for providing the necessary tools and databases to accomplish the above functions; developing and establishing procedures and guidelines and training in the configuration management, documentation management, and ISO 9001 disciplines.

FUNCTION 3 – IMPLEMENTATION PHASE SERVICES - DISCIPLINE SPECIFIC SERVICES

A. Project Management

The Contractor shall provide management services, including establishment of a management organization that ensures that all assigned task objectives are accomplished within specified schedule and cost constraints. Management shall provide frequent and timely status to the Government via cost, schedule, progress and other reports during all phases of work.

B. Mission Systems Engineering

The Contractor shall provide systems engineering support for project development, reporting progress and conformance to appropriate practices and specifications (see the GPG 7120.5 Systems Engineering). This shall include:

1. **Systems Engineering Specific Tasks** – The Contractor shall perform key mission and spacecraft-level systems engineering functions that include, but are not limited to:

- a. Operations Concept Development & Support:**

- a1. Developing the operations concept
 - a2. Preparing/reviewing mission operations concepts in regards to the intended functionality and interfaces among the flight subsystems and the ground
 - a3. Generating Mission Operations Concept Documents (ConOps)
 - a4. Participating in user interface meetings and joint integrated mission simulation training aimed at developing viable user operations
 - a5. Supporting satellite operations
 - a6. Analyzing flight anomalies and recommending implementing appropriate actions
 - a7. Working with principal investigator and science working group in planning operations
 - a8. Supporting “lessons learned” presentations
 - a9. Preparing plans for and supporting mission disposal operations

- b. Architecture & Design Development:**

- b1. Defining systems and conducting trade-off studies/design studies for spacecraft, suborbital craft, instruments, space segments and ground segments
 - b2. Reviewing software development and software system test activities
 - b3. Generating and maintaining and/or reviewing system block diagrams

- c. Requirements Analysis, Identification and Management:**

- c1. Generating and managing and/or reviewing Level 1 and 2 requirements
 - c2. Conducting requirements traceability

- c3. Documenting specified and lower level derived requirements to demonstrate that performance requirements are met
- c4. Reviewing/performing independent design and development requirements analyses, and submitting comments and recommendations
- c5. Reviewing technical specifications, and submitting comments and recommendations
- c6. Providing specification of Requirements for Design, non-flight and flight fabrication, and checkout of ground support equipment
- c7. Reviewing contamination control requirements
- c8. Reviewing operating plans and procedures for cryogenics, fuels, and other hazardous materials

d. Validation and Verification:

- d1. Generating and/or reviewing Verification Plans
- d2. Performing design, drawing, and specification reviews
- d3. Providing comments and/or recommendations to ensure: 1) that designs meet specification and interface requirements, 2) that appropriate parts standards are compatible with specified mission requirements and risk levels, 3) that detailed specifications are compatible with mission requirements, including margin and error budgets, 4) and that proper consideration is given to cost, reliability, safety, fabrication requirements, contamination control, magnetic materials/interference, launch requirements, and space environmental requirements.
- d4. Documentation and/or review of system qualification requirements
- d5. Preparing and/or reviewing hardware and software integration plans and procedures, and witnessing execution
- d6. Preparing and/or reviewing detailed functional and environmental test plans and procedures, and witnessing test execution
- d7. Ensuring that the technical aspects of shipping requirements and equipment are met
- d8. Preparing and/or reviewing plans for launch site checkout, integration and testing of flight systems, including adequacy of the launch site facility
- d9. Analyzing data from spacecraft telemetry data sources to ensure total system compatibility
- d10. Analyzing Flight performance from flight data

e. Interfaces and ICDs:

- e1. Reviewing and analyzing design interfaces
- e2. Identifying interface control requirements for engineering and design of components for launch, on orbit servicing, or retrieval of flight hardware
- e3. Preparing, reviewing, and analyzing interface documentation for mission systems
- e4. Preparing interface control documents and verifying proper implementation for flight and ground subsystems and systems
- e5. Controlling external interface documentation and requirements

f. Mission Environments:

f1. Defining and/or reviewing subsystem and hardware specifications to ensure that they meet the specific mission or spacecraft environment. Mission or spacecraft environment includes the following discipline areas:

- Mechanical systems
- Electrical systems
- EMI/EMC
- Grounding
- Thermal
- Radiation shielding
- Parts engineering
- Contamination
- Reliability
- Charging
- Timing and time distribution
- Data rates
- Safety
- Orbital debris assessment

g. Technical Resource Budget Tracking:

- g1. Documenting and controlling and/or Review of budget plans, including power, thermal, data storage, computer processing and communication through-put , attitude control, timing, mass properties, etc., both at the flight system level and allocated to lower levels of assembly; this shall include error margins, where applicable
- g2. Documenting command and telemetry signal margin plan, including bit error rates

h. Risk Analysis, Reduction, and Management:

- h1. Identifying high risk elements and developing/executing contingency plans for controlling the high risk elements
- h2. Reviewing contractor risk management plans and commenting on alternate approaches

i. System Milestone Review Candidates:

- i1. Conducting and documenting internal design reviews
- i2. Supporting standards definition and review
- i3. Attending and conducting technical meetings/design reviews, and submitting comments and recommendations
- i4. Preparing and presenting of technical information for technical conferences/reviews/briefings

j. Configuration Management and Documentation:

- j1. Analyzing configuration, design, anomaly resolutions, and procedural changes submitted to change control boards. Providing the services and functions stated in Section G of this document.

k. Systems Engineering Management Plan:

- k1. Generating System Engineering Management Plans (SEMP)
- k2. Documenting/reviewing system, subsystem and organizational processes in terms of ISO compliance and CMMI assessments
- k3. Developing or reviewing existing systems engineering tools for applicability as required
- k4. Review of Fabrication Plans

C. Instrument Systems Engineering

The Contractor shall provide instrument systems engineering support for project development, reporting progress and conformance to appropriate practices and specifications (see the GPG 7120.5 Systems Engineering). This shall include:

1. **Systems Engineering Specific Tasks**– The Contractor shall perform key Instrument systems engineering functions that include, but not limited to:

a. Instrument Data Processing Development & Support:

- a1. Developing Instrument data processing concept.
- a2. Developing hardware and software designs for the Instrument Data Processing Center.
- a3. Performing Systems analysis of Instrument Data Processing Center to verify performance.
- a4. Developing Instrument operations concept.
- a5. Supporting instrument operations.
- a6. Analyzing flight anomalies and recommending implementing appropriate actions.
- a7. Working with principal investigator and science working group in planning operations.
- a8. Supporting “lessons learned” presentations post-launch.

b. Instrument Architecture & Design Development:

- b1. Defining systems and conducting trade-off studies/design studies for instruments, space segments and ground segments.
- b2. Developing Instrument Architecture.
- b3. Reviewing subsystem development and test activities.
- b4. Generating and maintaining and/or reviewing system block diagrams.

c. Requirements Analysis, Identification and Management:

- c1. Generating and managing and/or reviewing Level 1 and 2 requirements.
- c2. Conducting requirements traceability.
- c3. Documenting specified and lower level derived requirements to demonstrate that performance requirements are met.
- c4. Reviewing/performing independent design and development requirements analyses, and submitting comments and recommendations.
- c5. Reviewing technical specifications, and submitting comments and recommendations.
- c6. Providing specification of Requirements for Design, non-flight and flight fabrication, and checkout of ground support equipment.
- c7. Reviewing contamination control requirements.
- c8. Reviewing operating plans and procedures for cryogenics, and other hazardous materials.

d. Validation and Verification:

- d1. Generating and/or reviewing Verification Plans.
- d2. Performing design, drawing, and specification reviews.
- d3. Providing comments and/or recommendations to ensure: 1) that designs meet specification and interface requirements, 2) that appropriate parts standards are compatible with specified mission requirements and risk levels, 3) that detailed specifications are compatible with mission requirements, including margin and error budgets, 4) and that proper consideration is given to cost, reliability, safety, fabrication requirements, contamination control, magnetic materials/interference, launch requirements, and space environmental requirements.
- d4. Documentation and/or review of system qualification requirements.
- d5. Preparing and/or reviewing hardware and software integration plans and procedures, and witnessing execution.
- d6. Preparing and/or reviewing detailed functional and environmental test plans and procedures, and witnessing test execution.
- d7. Ensuring that the technical aspects of shipping requirements and equipment are met.
- d8. Preparing and/or reviewing plans for launch site checkout, integration and testing of flight systems, including adequacy of the launch site facility.
- d9. Analyzing data from spacecraft telemetry data sources to ensure total system compatibility.
- d10. Analyzing Flight performance from flight data.

e. Interfaces and ICDs:

- e1. Reviewing and analyzing design interfaces.
- e2. Identifying interface control requirements for engineering and design of hardware for launch, on orbit servicing, or retrieval of flight hardware.
- e3. Preparing, reviewing, and analyzing interface documentation for Instrument systems.
- e4. Preparing interface control documents and verifying proper implementation for flight and ground Instrument subsystems and systems.

e5. Controlling external interface documentation and requirements

f. Mission Environments:

f1. Defining and/or reviewing subsystem and hardware specifications to ensure that they meet the specific mission environment. Mission environment includes the following discipline areas:

- Mechanical systems
- Electrical systems
- EMI/EMC
- Grounding
- Thermal
- Radiation shielding
- Parts engineering
- Contamination
- Reliability
- Charging
- Timing and time distribution
- Data rates
- Safety
- Orbital debris assessment

g. Technical Resource Budget Tracking:

- g1. Documenting and controlling and/or Review of budget plans, including power, thermal, data storage, computer processing and communication through-put , attitude control, timing, mass properties, etc., both at the flight system level and allocated to lower levels of assembly; this shall include error margins, where applicable
- g2. Documenting command and telemetry signal margin plan, including bit error rates

h. Risk Analysis, Reduction, and Management:

- h1. Identifying high risk elements and developing/executing contingency plans for controlling the high risk elements
- h2. Reviewing contractor risk management plans and commenting on alternate approaches

i. System Milestone Review Candidates:

- i1. Conducting and documenting internal design reviews
- i2. Supporting standards definition and review
- i3. Attending and conducting technical meetings/design reviews, and submitting comments and recommendations
- i4. Preparing and presenting of technical information for technical conferences/reviews/briefings

j. Configuration Management and Documentation:

- j1. Analyzing configuration, design, and procedural changes submitted to change control boards

k. Systems Engineering Management Plan:

- k1. Generating System Engineering Management Plans (SEMP)
- k2. Documenting/reviewing system, subsystem and organizational processes in terms of ISO compliance and CMMI assessments
- k3. Developing or reviewing existing systems engineering tools for applicability as required
- k4. Review of Fabrication Plans

D. Optical Engineering Services

The Contractor shall provide, on an as-needed basis, engineering services for state-of-the-art optical systems. These services shall include, for example, the design, development and analysis of optical components, diffraction and stray light/energy analyses, component/system alignment and/or calibration, and/or other services, as required.

E. Detector Engineering Services

The Contractor shall provide, on an as-needed basis, engineering services for state-of-the-art X-Ray, Gamma Ray, Visible, RF, and Microwave detection systems requiring low noise levels and calibrations traceable to physical standards. These services shall include, for example, Field Programmable Gate Arrays design and analyses, and/or other services, as required.

F. Software Specific Services

The Contractor shall provide software design services, including the design, development, analysis, coding, and testing:

- a. Real-time flight system control, monitoring and data processing, command and data handling, attitude determination and control, power subsystem control and monitoring, science data collection, processing, storage, and downlink, including:
 - 1. Command and control
 - 2. Data conditioning and communication
 - 3. Subsystem control and status
 - 4. Automated system protection
 - 5. In-flight scientific data processing and analysis

6. Embedded software
 7. Guidance Navigation and Control design
 8. Sensors and Actuators hardware and software development
 9. Space vehicle formation control software
- b. Flight system simulation and modeling software
 - c. Ground and flight system software
 - d. Science support software data systems and application software
 - e. Instrument software
 - f. Information management-based system and associated application software to accomplish:
 1. Problem reporting
 2. Resource and schedule tracking
 3. Configuration management (software and hardware)
 4. System/subsystem integration and qualification status lists

G. Data Systems Management Services

The Contractor shall provide data systems management services, including:

- a. Ensuring that all software (ground and/or flight) packages and associated interfaces are being properly managed and problems adequately identified and resolved.
- b. Developing, reviewing, and analyzing software requirements and specifications
- c. Analyzing software designs and design interfaces and making recommendations for solutions in specific problem areas
- d. Reviewing, analyzing, evaluating, and preparing data systems documentation such as feasibility studies, automatic data processing (ADP) plans, design, design interfaces, procedure handbooks, and other documentation materials
- e. Defining systems for end-to-end data processing
- f. Developing schedules for the data processing system in the areas of milestone development, network planning, milestone real-time tracking, and schedule impact analysis
- g. Contributing to the design, development, validation, implementation, certification, and maintenance of ground or on-board computer system simulators/emulators, including validation of flight systems software for ascent, transfer, or on-orbit phases and near real-time reprogramming and validation of modifications for recovery from anomalous situations
- h. Analyzing the design and implementation of simulators/emulators for ground crew training, systems testing and procedure validation

H. Guidance, Navigation and Control (GN&C) Engineering Services

The Contractor shall provide GN&C engineering support for all phases of project development, monitoring and reporting progress and conformance to appropriate practices and specifications. This shall include:

1. **GN&C Systems Engineering Specific Tasks** – The Contractor shall perform specific GN&C systems engineering tasks that include:
 - a. Flight Project GN&C Subsystem Engineering, including requirements development; analysis; trade studies; ICD development; verification and validation; risk management; general coordination of all GN&C elements; maintenance of mass, power, and pointing budgets; operations planning
 - b. GN&C Conceptual Design, Modeling and Simulation
 - c. GN&C Science and Instrument Interface Engineering
 - d. Spacecraft Reentry Systems Engineering
 - e. Re-entry Debris Analysis, Modeling and Simulation
 - f. GN&C Engineering Support to Integrated Mission Design Center (IMDC)
 - g. Advanced GN&C Systems Technology Development, including the design, analysis, non-flight and flight fabrication, assembly, and test of hardware and/or software
 - h. Advanced GN&C Testbeds, Tools and Methods Development
 - i. Balloon, UAV and Sounding Rocket GN&C Engineering
 - j. Formation Flying Test Bed (FFTB) Design and Development
 - k. Technical Consultation and Support (Proposals, Peer, Design, and Anomaly Reviews)

2. **Flight Dynamics Engineering Specific Tasks** – The Contractor shall perform specific Flight Dynamics engineering tasks that include:
 - a. Attitude Design, Analysis and Simulation
 - b. Trajectory Design, Analysis and Simulation
 - c. Attitude Control Design, Analysis and Simulation
 - d. Trajectory Control Design, Analysis and Simulation
 - e. Vehicle Guidance Analysis and Algorithm Design, Analysis and Simulation
 - f. Space and Launch Vehicle Dynamics Analysis and Simulation
 - g. Control/Structure Interaction Analysis and Simulation
 - h. Mission (Attitude and Trajectory) Planning and Design
 - i. Attitude and Trajectory Estimation Design, Analysis and Simulation
 - j. Aerodynamics Design, Analysis and Simulation
 - k. Space Vehicle Autonomous Control Design, Analysis and Simulation
 - l. Formation Flying/Constellation Flight Dynamics Design, Analysis and Simulation
 - m. Flight Dynamics Technology Development

n. Flight Dynamics Catalog/Database Maintenance

3. **Component and Hardware Systems Engineering Specific Tasks** – The Contractor shall perform specific GN&C component and hardware systems engineering tasks that include:

a. Advanced GN&C Sensor /Actuator Design, Development, and Test

4. **Propulsion Engineering Specific Tasks** – The Contractor shall perform specific spacecraft propulsion systems engineering tasks that include:

a. Spacecraft Propulsion Subsystem Engineering

b. Advanced Propulsion Technology Development, including advanced chemical propulsion, electrical propulsion (EP), MEMS, micro-propulsion components; test equipment and instrumentation to support development & testing of sub-microN thrusters

c. Fluid Systems Engineering including transient flow, vapor diffusion, fluid slosh and plume impingement analyses

d. Power & Electric Propulsion System Engineering, including low thrust trajectory design; EP system design & trades; EMI testing, analysis and mitigation

e. Nanocalorimetry

f. Propulsion Chemical Analyses

g. Propulsion GSE Design and Development

h. Propulsion System Engineering Support to IMDC and advanced mission studies

i. Propulsion System Engineering Support to Flight Project, including technical consultations and engineering support for design reviews, analyses, proposal development, and anomaly resolution. Data Acquisition Engineer, including software and hardware design, development and test.

j. Mechanical and Thermal Engineering Support specific to propulsion system design and analysis.

5. **Propulsion System Technician Specific Tasks** - The Contractor shall perform specific spacecraft propulsion system technician tasks that include:

a. Mechanical Technician tasks for the fabrication, assembly, integration and test of propulsion subsystems, including subsystem manifold fabrication, precision cleaning, certified welding, integration of propulsion subsystem components, and clean room operation

b. Electrical Technician tasks for the fabrication, assembly, integration and test of propulsion subsystems, including certified soldering, crimping, staking, harness fabrication, electrical component test and integration.

c. Advanced Propulsion Technology Development Technician tasks, including conducting micro-Newton thrust stand tests; vacuum system assembly,

maintenance and operation; chemical handling; fluid system assembly and operation.

I. Robotics Specific Services

The Contractor shall provide engineering support for all phases of robotic project development. These shall include:

- a. Articulated Mechanism Dynamics
- b. Force Feedback Control
- c. Remote Teleoperation
- d. Machine Vision
- e. Range Sensor Processing
- f. Motion Planning
- g. Collision Prediction
- h. Gravity Compensation

FUNCTION 4 – RESEARCH AND TECHNOLOGY SERVICES

The contractor shall provide advanced research and technology support to MESA, EED, ISD, ISTD, and related organizations. These services may include development, test and analysis work in support of the Research and Technology activities.

A. Instrument Systems Technology Services

The Contractor shall provide research, design, development, and testing, and analysis services for instrument systems, including:

1. **Instrument Systems Specific Tasks**– The Contractor shall provide services for the research and development of advanced analytical, engineering, integration, testing, and software engineering techniques including:
 - A. Instrument Systems Performance modeling
 - B. X-Ray, Ultraviolet, Optical, and Infrared Instrument systems performance testing and analysis
 - C. Particle and field Instrument design development and analysis
 - D. Instrument Systems signal to noise analysis
 - E. Advanced hyperspectral imaging concepts
 - F. Microwave and submillimeter wave radiometer advanced concepts and performance modeling
 - G. Lossless and lossy compression algorithms
 - H. Science data archival formats
 - I. Science data distribution methods
 - J. Instrument applications of computational optics
 - K. Synthetic Aperture Radar advanced concepts
 - L. Computational Image enhancement
 - M. Autonomous Instrument systems

B. Instrument Electronics Systems Technology Services

The Contractor shall provide services for research, design, development, fabrication, test, and analysis of advanced signal processing electronics for space flight systems, including support for language-based microelectronics development. The Contractor shall provide services for sensor signal processing technology tasks, digital signal processing technology tasks and advanced applications technology tasks.

C. Computer Support Technology Services

The Contractor shall provide computer technology services, including:

1. **Computer Support Specific Tasks** – The Contractor shall provide computer technology services, including:
 - a. Engineering support to analyze data acquisition, processing, distribution, archival/storage, and measurement problems
 - b. Data reduction to include statistical and thematic trends analyses
 - c. Diagnostics assistance for instrument checkout between test consoles and test components
 - d. Program services to utilize test instruments in aerospace system test and analysis, including GPIB type operation and GUI based software system
 - e. General in-house computer software maintenance to include, but not be limited to, updating and debugging programs
 - f. Design, coding, integration, test, documentation, and maintenance of special applications programs
 - g. Updating of existing technical in-house computer databases
 - h. Transfer of programs from one system to another and testing for functional operations and real time data transfer between dissimilar systems
 - i. Debugging of general utility programs, such as graphic packages
 - j. Assistance in analyzing and implementing solutions to computer hardware interface problems
 - k. Assistance in network and operating system configurations, troubleshooting, installation, and maintenance
 - l. Design and debug of test procedures

2. **IT Systems Security and System Administrator Function** – The contractor shall provide Windows, Macintosh, Linux, UNIX, Web, LAN systems administration services to desktops, workstations and servers, including:
 - a. Logging, reporting, diagnosing and correcting system faults
 - b. Configuring systems for performance, security and network compatibility
 - c. Performing updates of the operating system and associated software for desktops and workstations
 - d. Assisting in the preparation and updating of IT security and system administration documentation
 - e. Working with the Code 297, CNE, and SET on implementing IT security initiatives
 - f. Assisting users with software/hardware installation
 - g. Performing Help Desk functions including problem diagnosis and answering user questions regarding applications
 - h. Monitoring system and network security and availability
 - i. Repairing workstations, desktops and printers on an emergency basis
 - j. Data backup, archive, and retrieval

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 arbitrate 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.

3. **Web Page Development and Maintenance Function** – The contractor shall provide web development services to help promote organizational capabilities, including:
 - a. Development, maintenance, and upgrade of web sites
 - b. Management of mission test facilities that require significant computer capabilities
 - c. Compliance to Agency and Center policy (GSFC Webmaster) such as 508 compliance and Post 9-11 accessibility compatibility
 - d. Defining with customer the look and feel of the web site, and reviewing web site requirements
 - e. Developing prototype web sites for maturing web based concepts
 - f. Providing maintenance services to keep web site up to date and compliant

D. Software Systems Technology Services

The Contractor shall provide technology services for the research and development of advanced software topics, including:

1. **Software Systems Technology Specific Tasks** – The Contractor shall provide services for research, design, development, implementation, test, and analysis of software systems technology, including:
 - a. Automation and artificial intelligence applications
 - b. Software engineering
 - c. Distributed processing
 - d. Internet applications
 - e. Flight software
 - f. Scientific data analysis
 - g. Visualization and virtual environments
 - h. Data processing, archival and distribution
 - i. Simulation and modeling
 - j. Human-computer interfaces
 - k. Middleware
 - l. Software standards
 - m. Software methodologies
 - n. Reuse

E. Demonstration, Presentation and Conference Services

The Contractor shall provide technology services for hardware and software demonstrations, technical/project/conference presentations, and conference planning/implementation for items within the scope of this Statement of Work, including:

1. **Demonstration Specific Tasks** – The Contractor shall provide hardware, software, support equipment, and technical services for onsite and offsite demonstrations.
2. **Presentation Specific Tasks** – The Contractor shall provide materials for inclusion in technical/project/conference presentations, including viewgraphs, information, photographs, etc. In addition, the Contractor shall perform the presentation.
3. **Conference Specific Tasks** – The Contractor shall assist the Government by providing services in the planning and implementation of conferences.

F. Systems Technology Services

The Contractor shall provide services for the research and development of advanced technologies for end-to-end mission architectures, systems, subsystems, components, devices, and elements for spacecraft, balloons, UAV's, sounding rockets, instruments, and other platforms, including:

1. Technology Validation
2. Technology Infusion
3. Technology State-of-the-Art and Gap Analyses
4. Strategic Technology Planning and Roadmapping
5. Technology Study/Proposal Support
6. Technology Infrastructure/Facility Requirements Planning
7. Technology Special Studies, including the development and refinement of technology enabled missions
8. Technology Tracking, Documentation and Reporting
9. Technology Prototyping

The Contractor shall provide these services for the research and technology support for a broad range of systems technologies, including, but not limited to, the following:

1. Distributed Space System Concepts
2. Autonomous constellation operations and control systems
3. Modular spacecraft concepts
4. Reconfigurable Space Systems
5. Solar sails
6. Sparse aperture large space telescopes
7. Sensor webs and data driven sensing networks
8. Ultra Low Power Systems
9. Design for demise concepts
10. Satellite servicing

FUNCTION 5 – DOCUMENTATION SERVICES

The Contractor shall provide documentation services for all levels of hardware and software within the scope of this Statement of Work, as specified in task assignments. Documents shall conform to applicable documents and specifications. These shall include pertinent NHBs, SMAP, and/or Program/Project specific performance assurance guidelines, quality standards, GSFC standards, documents of other NASA Centers, Federal standards, military standards, and commercial standards.

A. Document Services

The Contractor shall provide documentation services, including instrument conceptual designs, program plans, systems analyses, illustrations, technical and implementation plans, test plans, test procedures, test scripts, software documentation, and the full range of system hardware and software documentation. These shall also include up-to-date drawings, specifications, certifications, reports, interface control documents, and agreements.

1. **Document Services Specific Tasks** – The Contractor shall provide electronic media and document services, including:
 - a. Technical writing
 - b. Editing
 - c. Drafting
 - d. CAD/CAM
 - e. Photographic
 - f. Video
 - g. Reproduction
 - h. CD, DVD
 - i. Posters and Displays

2. **Photo and Video Specific Tasks** – The Contractor shall use photos and video for maintenance, engineering, or as documentation to explain a problem. They shall become supplemental to assist in unit repair or future development and maintenance. A scale shall be included to indicate relative dimensions in photographs and/or video, where appropriate.

FUNCTION 6 – MAINTENANCE SERVICES

The Contractor shall provide maintenance support to ensure long term reliability through an integrated and efficient approach, including:

A. Preventive Maintenance

The Contractor shall perform preventative maintenance on hardware and software within the scope of this Statement of Work as specified in task assignments.

B. Emergency Repair Services

The Contractor shall provide expeditious emergency repair services for hardware and software within the scope of this Statement of Work, as specified in task assignments. The Contractor shall respond to the Government within four hours of notification to determine and implement a mutually agreeable course of action. In some cases, there shall be 24-hour coverage during flight hardware and software evaluation, verification, and test. This service shall comprise of repair, modification, or replacement of components, codes, subassemblies, and assemblies. Documentation updates shall be required as a result of any change.

FUNCTION 7 – SUSTAINING ENGINEERING SERVICES

The Contractor shall provide sustaining engineering services for hardware and software within the scope of this Statement of Work, including:

1. Modifications of hardware/firmware and software, including installation of elements for improved reliability and/or performance
2. Modifications of wiring to improve circuit performance
3. Non-flight and flight fabrication, assembly, wiring, and testing of printed circuit assemblies where necessary to update old circuitry or improve reliability
4. Engineering, non-flight and flight fabrication, testing of assemblies or sub-assemblies to replace outdated circuitry to eliminate component or circuit failures
5. Engineering, non-flight and flight fabrication, assembly, and testing of engineering circuits to correct problems encountered
6. Modifications of mechanical assemblies, structures, and mechanisms to correct or improve the design
7. Update of drawings, manuals, and technical data to reflect current status at the time of modifications
8. Firmware and software modifications in response to approved changes, including problem fixes.

FUNCTION 8 – EDUCATION SERVICES

The Contractor shall provide education services, including:

1. Supporting the AETD Systems Engineering Education and Development (SEED) program
2. Supporting educational outreach programs with universities and NASA headquarters
3. Supporting MESA, ISD, ISTD, EED division or branch-level educational programs and training

FUNCTION 9 – STANDARDS AND PROCESS

The Contractor shall provide support for engineering standards work and engineering process work, including:

1. International Standard Organization (ISO) documentation and process generation
2. Engineering standards documentation and review
3. Engineering process documentation
4. Activities in support of engineering process improvement

These work shall include providing support for software and systems engineering capability assessment and improvement services such as “Software Initiative to implement Capability Maturity Model Integrated (CMMI),” “Support to the Software Engineering Process Group (SEPG),” “Tasks in support of the Systems Engineering Working Group (SEWG),” “Tasks in support of the Software Working Group (SWG),” and Systems Engineering process improvement activities.

APPLICABLE DOCUMENTS AND SPECIFICATIONS

The contractor shall adhere to all applicable portions of the following documents and/or specifications in the performance of this contract. The latest updated version shall apply:

General:

NPR 7120.5B, "NASA Program and Project Management Processes and Requirements"

Launch Vehicles:

EWR 127-1, "Eastern and Western Range Safety Requirements"

NSTS 1700.7B, "Safety Policy and Requirements for Payloads Using the Space Transportation System"

2.45 SPW S-100/KHB 1700.7B, "Space Shuttle Payload Ground Safety Handbook"

Conformal Coating and Staking:

NASA-STD-8739.1, "Workmanship Standard for Staking and Conformal Coating of Printed Wiring Boards and Electronic Assemblies"

Soldering – Flight, Surface Mount Technology:

NASA-STD-8739.2, "Surface Mount Technology"

Soldering – Flight, Manual (hand):

NASA-STD-8739.3, "Soldered Electrical Connections"

Soldering – Ground Systems:

Association Connecting Electronics Industries (IPC)/Electronics Industry Alliance (EIA)
J-STD-001C, "Requirements for Soldered Electrical and Electronic Assemblies"

Electronic Assemblies – Ground Systems:

IPC-A-610, "Acceptability of Electronic Assemblies"

Crimping, Wiring, and Harnessing:

NASA-STD-8739.4, "Crimping, Interconnecting Cables, Harnesses, and Wiring"

Fiber Optics:

NASA-STD-8739.5, "Fiber Optic Terminations, Cable Assemblies, and Installation"

Electro-Static Discharge (ESD) Control:

ANSI/ESD S20.20, "Protection of Electrical and Electronic Parts, Assemblies and Equipment" (excluding electrically initiated explosive devices)

Printed Wiring Board (PWB) Design:

500-PG-8700.2.2, Electronics Design and Development Guidelines
500-PG-8700.2.4, Mechanical Design and Development Guidelines,
GSFC X-673-64-1F, "Engineering Drawing Standards Manual" (December 1994)
IPC-2221, "Generic Standard on Printed Board Design"
IPC-2222, "Sectional Design Standard for Rigid Organic Printed Boards"
IPC-2223, "Sectional Design Standard for Flexible Printed Boards"
IPC D-275 "Design Standard for Rigid Printed Boards and Rigid Printed Board
Assemblies"

PWB Manufacture:

GSFC 311-INST-002, "Instructions for EEE Parts Selection, Screening, and
Qualification"
IPC A-600, "Acceptability of Printed Boards"
IPC-6011, "Generic Performance Specification for Printed Boards"
IPC-6012, "Qualification and Performance Specification for Rigid Printed Boards"
Flight Applications – Supplemented with: GSFC/S312-P-003, Procurement
Specification for Rigid Printed Boards for Space Applications and Other High
Reliability Uses
IPC-6013 "Qualification and Performance Specification for Flexible Printed Boards"
IPC-6018 "Microwave End Product Board Inspection and Test"

IT System Administration

NASA PIC 04-03, "04-03 Procurement Information Circular"

REFERENCE DOCUMENTS AND SPECIFICATIONS

The following documents and/or specifications are provided as reference material for the performance of this contract. The latest updated version shall apply:

SP-6105, The NASA Systems Engineering Handbook, June 1995

2. AMENDMENT/MODIFICATION NO. 000025	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHASE REQ. NO. 4200183942	5. PROJECT NO. (If applicable)
ED BY CODE	GSFC	7. ADMINISTERED BY (If other than Item 6) CODE	GSFC

NASA/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771	NASA/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771
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8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SGT INC Attn: NONE SPECIFIED 7701 GREENBELT RD STE 400 GREENBELT MD 20770-6521	(x)	9A. AMENDMENT OF SOLICITATION NO. 9B. DATED (SEE ITEM 11)
CODE	FACILITY CODE	X 10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C 10B. DATED (SEE ITEM 11) 02/05/2005

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended. is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

Buyer Code/PGrp: GJF	PR 4200183942	Net Increase: \$4,637,614.00	PPC: PF
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13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)
X	(Unilateral) FAR Clause 52.232-22, LIMITATION OF FUNDS (APR 1984)

E. IMPORTANT: Contractor is not. is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

This modification increased the funds allotted to the contract.

003 FY07 FUNDING FOR SGT
 Incrementally Funded Amount: \$4,627,614.00

4,627,614.00

Delivery Location Code: GSFC
 NASA/Goddard Space Flight Center
 8800 Greenbelt Road
 Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)
	Klaus Sexton
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED
(Signature of person authorized to sign)	UNITED STATES OF AMERICA
	16C. DATE SIGNED
	1/26/2007
	(Signature of Contracting Officer)

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
NNG05CA99C/000025

PAGE OF
2 3

NAME OF OFFEROR OR CONTRACTOR
... INC

I NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	Greenbelt MD 20771 USA Amount: \$4,627,614.00				

Contract NNG05CA99C
Modification Number 25
Page 3 of 3

Accordingly,

1. Revise Clause B.10, CONTRACT FUNDING (1852.232-81) (JUN 1990), to increase the funds allotted for payment of cost and fee as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
a. Estimated Cost	\$67,260,389	\$4,255,277	\$71,515,666
b. Award Fee	<u>5,885,284</u>	<u>372,337</u>	<u>6,257,621</u>
Total Funds	<u>\$73,145,673</u>	<u>\$4,627,614</u>	<u>\$77,773,287</u>

The allotment date for funds is changed to March 2, 2007 per a January 25, 2007 email from James Ronning (SGT).

--END OF MODIFICATION NUMBER 25--

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE OF PAGES
			1 3
2. AMENDMENT/MODIFICATION NO. 000026	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHASE REQ. NO. 4200190189	5. PROJECT NO. (If applicable)
ISSUED BY	CODE GSFC	7. ADMINISTERED BY (If other than Item 6)	CODE GSFC
.SA/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771		NASA/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)		(x) 9A. AMENDMENT OF SOLICITATION NO.	
SGT INC Attn: NONE SPECIFIED 7701 GREENBELT RD STE 400 GREENBELT MD 20770-6521		9B. DATED (SEE ITEM 11)	
		X 10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C	
		10B. DATED (SEE ITEM 11)	
CODE	FACILITY CODE	02/05/2005	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended. is not extended.
 Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (if required) Net Increase: \$953,058.00
 Buyer Code/PGrp: GJF PR 4200190189 PPC: PF

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) (Unilateral) FAR Clause 52.232-22, LIMITATION OF FUNDS (APR 1984)

E. IMPORTANT: Contractor is not. is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

004 FY07 FUNDING FOR SGT
 Obligated Amount: \$953,058.00

953,058.00

Delivery Location Code: GSFC
 NASA/Goddard Space Flight Center
 8800 Greenbelt Road
 Greenbelt MD 20771 USA
 Amount: \$953,058.00

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)
	Klaus Sexton
15B. CONTRACTOR/OFFEROR	16B. UNITED STATES OF AMERICA
(Signature of person authorized to sign)	(Signature of Contracting Officer)
15C. DATE SIGNED	16C. DATE SIGNED
	2/20/2007

FORM 30 (REV. 10-83)
 Previous edition unusable

STANDARD FORM 30 (REV. 10-83)
 Prescribed by GSA
 FAR (48 CFR) 53.243

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
NNG05CA99C/000026

PAGE OF
2 3

NAME OF OFFEROR OR CONTRACTOR
SGT INC

EM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)

Contract NNG05CA99C
Modification Number 26
Page 3 of 3

Accordingly,

1. Revise Clause B.10, CONTRACT FUNDING (1852.232-81)
(JUN 1990), to increase the funds allotted for payment of cost and fee
as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
a. Estimated Cost	\$71,515,666	\$876,375	\$72,392,041
b. Award Fee	<u>6,257,621</u>	<u>76,683</u>	<u>6,334,304</u>
Total Funds	<u>\$77,773,287</u>	<u>\$953,058</u>	\$78,726,345

The allotment date for funds is changed to March 9, 2007 per a February 16, 2007 email from Wendy Johnson (SGT).

--END OF MODIFICATION NUMBER 26--

2. AMENDMENT/MODIFICATION NO. 3. EFFECTIVE DATE 4. REQUISITION/PURCHASE REQ. NO. 5. PROJECT NO. (If applicable)
 000027 See Block 16C 4200192165

6. ADMINISTERED BY (If other than Item 6) CODE GSFC
 NASA/Goddard Space Flight Center
 Procurement Operations Division
 Greenbelt MD 20771

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) 9A. AMENDMENT OF SOLICITATION NO.
 SGT INC (x)
 Attn: NONE SPECIFIED
 7701 GREENBELT RD STE 400
 GREENBELT MD 20770-6521
 9B. DATED (SEE ITEM 11)
 10A. MODIFICATION OF CONTRACT/ORDER NO. X
 NNG05CA99C
 10B. DATED (SEE ITEM 11)
 02/05/2005

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS
 The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended. is not extended.
 Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Increase: \$6,066,000.00
 Buyer Code/PGrp: GJF PR 4200192165 PPC:PF

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

- ONE A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
- B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
- C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
- D. OTHER (Specify type of modification and authority)
 X (Unilateral) FAR Clause 52.232-22, LIMITATION OF FUNDS (APR 1984)

E. IMPORTANT: Contractor is not is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
 Delivery Location Code: GSFC
 NASA/Goddard Space Flight Center
 8800 Greenbelt Road
 Greenbelt MD 20771 USA

005 FY07 FUNDING FOR METS 6,066,000.00
 Obligated Amount: \$6,066,000.00

Continued ...
 Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) 16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)
 Klaus D. Sexton
 15B. CONTRACTOR/OFFEROR 15C. DATE SIGNED 16B. UNITED STATES OF AMERICA 16C. DATE SIGNED
 (Signature of person authorized to sign) (Signature of Contracting Officer)
 3/7/2007

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
NNG05CA99C/000027

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2 3

NAME OF OFFEROR OR CONTRACTOR

7 INC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)

Contract NNG05CA99C
Modification Number 27
Page 3 of 3

Accordingly,

1. Revise Clause B.10, CONTRACT FUNDING (1852.232-81) (JUN 1990), to increase the funds allotted for payment of cost and fee as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
a. Estimated Cost	\$72,392,041	\$5,577,931	\$77,969,972
b. Award Fee	<u>6,334,304</u>	<u>488,069</u>	<u>6,822,373</u>
Total Funds	\$78,726,345	\$6,066,000	\$84,792,345

The allotment date for funds is changed to April 25, 2007 per a March 7, 2007 email from James Ronning (SGT).

--END OF MODIFICATION NUMBER 27--

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE 1 OF 4 PAGES
2. AMENDMENT/MODIFICATION NO. Twenty-Eight (28)	3. EFFECTIVE DATE See Item 16C Below	4. REQUISITION/PURCHASE REQ. NO. See Item 12 Below	5. PROJECT NO. (If applicable)	
6. ISSUED BY National Aeronautic and Space Administration Goddard Space Flight Center Greenbelt, MD 20771		7. ADMINISTERED BY (If other than Item 6)	CODE	
8. NAME AND ADDRESS OF CONTRACTOR (No. Street, county, State and ZIP: Code) SGT, Inc. 7701 Greenbelt Road, Suite 400 Greenbelt, MD 20770			(4)	9A. AMENDMENT OF SOLICITATION NO.
				9B. DATED (SEE ITEM 11)
				10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C
				10B. DATED (SEE ITEM 13) February 5, 2005
CODE	FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning one (1) copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATA SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and data specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

Buyer Code/PGrp: GJF PR No.: N/A Amount: N/A PPC: PF

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(4)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 52.243-2 -- Changes -- Cost-Reimbursement. (AUG 1987) -- Alternate II (APR 1984)
	D. OTHER Specify type of modification and authority

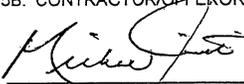
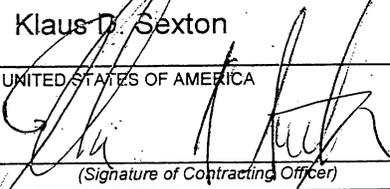
E. IMPORTANT: Contractor is not, is required to sign this document and return 3 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this no-cost supplemental agreement is to incorporate the clauses "ACCESS TO SENSITIVE INFORMATION (1852.237-72) (JUNE 2005)" and "RELEASE OF SENSITIVE INFORMATION (1852.237-73) (JUNE 2005)" into the contract.

Accordingly:

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Michael Gigliotti Director Finance & Administration	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Klaus D. Sexton
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED 5/10/07
16B. UNITED STATES OF AMERICA BY  (Signature of Contracting Officer)	16C. DATE SIGNED 5/10/2007

1) In Section H, add the following Clause H.12 ACCESS TO SENSITIVE INFORMATION (1852.237-72) (JUNE 2005)

H.12 ACCESS TO SENSITIVE INFORMATION (1852.237-72) (JUNE 2005)

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

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

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

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

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

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

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

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

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

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

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

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

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

(End of clause)

2) In Section H, add the following Clause H.13 RELEASE OF SENSITIVE INFORMATION (1852.237-73) (JUNE 2005)

H.13 RELEASE OF SENSITIVE INFORMATION (1852.237-73) (JUNE 2005)

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

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

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

Mark the title page with the following legend:

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

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

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

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

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

- (1) Comply with all specified procedures and obligations, including the Organizational Conflicts of Interest Avoidance Plan, which the contract has incorporated as a compliance document.
- (2) Utilize any sensitive information coming into its possession only for the purpose of performing the services specified in its contract.
- (3) Safeguard sensitive information coming into its possession from unauthorized use and disclosure.
- (4) Allow access to sensitive information only to those employees that need it to perform services under its contract.
- (5) Preclude access and disclosure of sensitive information to persons and entities outside of the service provider's organization.
- (6) Train employees who may require access to sensitive information about their obligations to utilize it only to perform the services specified in its contract and to safeguard it from unauthorized use and disclosure.
- (7) Obtain a written affirmation from each employee that he/she has received and will comply with training on the authorized uses and mandatory protections of sensitive information needed in performing this contract.
- (8) Administer a monitoring process to ensure that employees comply with all reasonable security procedures, report any breaches to the Contracting Officer, and implement any necessary corrective actions.

(e) When the service provider will have primary responsibility for operating an information technology system for NASA that contains sensitive information, the service provider's contract shall include the clause at 1852.204-76,

Contract NNG05CA99C

Modification No. Twenty-Eight (28)

Page 4 of 4

Security Requirements for Unclassified Information Technology Resources. The Security Requirements clause requires the service provider to implement an Information Technology Security Plan to protect information processed, stored, or transmitted from unauthorized access, alteration, disclosure, or use. Service provider personnel requiring privileged access or limited privileged access to these information technology systems are subject to screening using the standard National Agency Check (NAC) forms appropriate to the level of risk for adverse impact to NASA missions. The Contracting Officer may allow the service provider to conduct its own screening, provided the service provider employs substantially equivalent screening procedures.

(f) This clause does not affect NASA's responsibilities under the Freedom of Information Act.

(g) The Contractor shall insert this clause, including this paragraph (g), suitably modified to reflect the relationship of the parties, in all subcontracts that may require the furnishing of sensitive information.

(End of clause)

--END OF MODIFICATION NUMBER 28--

Accordingly,

1. This modification recognizes the Award Fee earned for the fourth (4th) evaluation period (August 1, 2006 - January 31, 2007). The contractor earned \$1,724,049 or 95.8% of the total available award fee of \$1,798,883.
2. Provisional award fee vouchers submitted for payment during the fourth (4th) evaluation period are as follows:

FEE VOUCHER NO.	AMOUNT
Inv#23F	\$245,150
Inv#24F	\$220,162
Inv#25F	\$224,574
Inv#26F	\$282,341
Inv#27F	\$225,383
Inv#28F	\$271,325
TOTAL	\$1,468,935

3. The net Award Fee amount to be paid for the 4th Award Fee Evaluation period is as follows:

4th Period Earned Award Fee	\$1,724,049
Less Provisional Fee Payments	<u>-\$1,468,935</u>
Net Award Fee Amount to be Paid	<u>\$255,114</u>

--END OF MODIFICATION NUMBER 28--

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE OF PAGES 1 4
2. AMENDMENT/MODIFICATION NO. 000030	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHASE REQ. NO. See Schedule	5. PROJECT NO. (If applicable)
6. ISSUED BY A/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771	CODE GSFC	7. ADMINISTERED BY (If other than Item 6) NASA/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771	CODE GSFC
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SGT INC Attn: NONE SPECIFIED 7701 GREENBELT RD STE 400 GREENBELT MD 20770-6521		(x) 9A. AMENDMENT OF SOLICITATION NO.	9B. DATED (SEE ITEM 11)
CODE	FACILITY CODE	X 10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C	10B. DATED (SEE ITEM 11) 02/05/2005

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended. is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
Buyer Code/PGrp: GJF PR 4200197758 Net Increase: \$7,590,448.00
PPC: PF

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE

A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).

C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

D. OTHER (Specify type of modification and authority)
X (Unilateral) FAR Clause 52.232-22, LIMITATION OF FUNDS (APR 1984)

E. IMPORTANT: Contractor is not. is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
LIST OF CHANGES:
Obligated Amount for this Modification: \$7,590,448.00
New Total Obligated Amount for this Award: \$92,382,793.96

NEW ACCOUNTING CODE ADDED:
Account code:
0000515900/6100.2550/51/FC000000/946113.04.01/000/2550/31-946113/ESAX22006D/352A/2/3
Continued ...
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Klaus D. Sexton
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED (Signature of Contracting Officer)
16B. UNITED STATES OF AMERICA	16C. DATE SIGNED 4/19/2007

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
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NAME OF OFFEROR OR CONTRACTOR
 SGT INC

ITEM NO. A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	Cost Center 0000515900 GI Account 6100.2550 Order FC000000 Quantity: 0 Amount: \$200,000.00 Percent: .11677 Subject To Funding: Payment Address: NEW ACCOUNTING CODE ADDED: Account code: 0000515900/6100.2550/51/FC000000/946113.04.01/000/ 2550/51/ESAX22007D/352A/1/2 Cost Center 0000515900 GI Account 6100.2550 Order FC000000 Quantity: 0 Amount: \$7,000,000.00 Percent: 4.08703 Subject To Funding: Payment Address: NEW ACCOUNTING CODE ADDED: Account code: 0000515820/6100.2550/51/FC000000/869933.01.04.11.0 5.0/3/000/2550/51/ESAX22007D/CMO/3/4 Cost Center 0000515820 GI Account 6100.2550 Order FC000000 Quantity: 0 Amount: \$31,000.00 Percent: .0181 Subject To Funding: Payment Address: NEW ACCOUNTING CODE ADDED: Account code: 0000513000/6100.2550/51/FC000000/667560.04.07.05/0 00/2550/51/ESAX22007D/743A/4/5 Cost Center 0000513000 GI Account 6100.2550 Order FC000000 Quantity: 0 Amount: \$165,000.00 Percent: .09634 Subject To Funding: Payment Address: Continued ...				

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
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NAME OF OFFEROR OR CONTRACTOR
SGT INC

FM NO. A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>NEW ACCOUNTING CODE ADDED: Account code: 0000513000/6100.2550/51/FC000000/667560.04.01.24/0 00/2550/51/ESAX22007D/743A/5/6 Cost Center 0000513000 GI Account 6100.2550 Order FC000000 Quantity: 0 Amount: \$50,000.00 Percent: .02919 Subject To Funding: Payment Address:</p> <p>NEW ACCOUNTING CODE ADDED: Account code: 0000515900/6100.2550/51/FC000000/292487.08.04.06.0 4.0/3.02/000/2550/51/ESAX22007D/CMO/6/7 Cost Center 0000515900 GI Account 6100.2550 Order FC000000 Quantity: 0 Amount: \$44,448.00 Percent: .02595 Subject To Funding: Payment Address:</p> <p>NEW ACCOUNTING CODE ADDED: Account code: 0000515900/6100.2550/51/FC000000/869933.01.04.05.0 5/000/2550/51/ESAX22007D/CMO/7/8 Cost Center 0000515900 GI Account 6100.2550 Order FC000000 Quantity: 0 Amount: \$100,000.00 Percent: .05839 Subject To Funding: Payment Address:</p> <p>Delivery Location Code: GSFC NASA/Goddard Space Flight Center 8800 Greenbelt Road Greenbelt MD 20771 USA</p>				

Contract NNG05CA99C
Modification Number 30
Page 4 of 4

Accordingly,

1. Revise Clause B.10, CONTRACT FUNDING (1852.232-81) (JUN 1990), to increase the funds allotted for payment of cost and fee as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
a. Estimated Cost	\$77,969,972	\$6,979,722	\$84,949,694
b. Award Fee	<u>6,822,373</u>	<u>610,726</u>	<u>7,433,099</u>
Total Funds	\$84,792,345	\$7,590,448	\$92,382,793

The allotment date for funds is changed to June 27, 2007 per a April 16,2007 email from Wendy Johnson (SGT).

--END OF MODIFICATION NUMBER 30--

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE OF PAGES 1 5
2. AMENDMENT/MODIFICATION NO. 000031	3. EFFECTIVE DATE 05/21/2007	4. REQUISITION/PURCHASE REQ. NO. See Schedule	5. PROJECT NO. (If applicable)
'ISSUED BY SA/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771	CODE GSFC	7. ADMINISTERED BY (If other than Item 6) NASA/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771	CODE GSFC
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SGT INC Attn: NONE SPECIFIED 7701 GREENBELT RD STE 400 GREENBELT MD 20770-6521		(x) 9A. AMENDMENT OF SOLICITATION NO.	
CODE		9B. DATED (SEE ITEM 11)	
FACILITY CODE		X 10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C	
		10B. DATED (SEE ITEM 11) 02/05/2005	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended. is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
Buyer Code/PGP:GJF PRs:4200202206 \$3,586,360; 4200202376 \$50,000 Net Increase: \$3,636,360.00
PPC:PF

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) (Unilateral) FAR CLAUSE 52.232-22, LIMITATION OF FUNDS (APR 1984)

E. IMPORTANT: Contractor is not. is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

LIST OF CHANGES:

Obligated Amount for this Modification: \$3,636,360.00
New Total Obligated Amount for this Award: \$96,019,153.96

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) PLUS D. SECTION
15B. CONTRACTOR/OFFEROR	16B. UNITED STATES OF AMERICA
15C. DATE SIGNED	16C. DATE SIGNED 5/23/2007
(Signature of person authorized to sign)	(Signature of Contracting Officer)

7540-01-152-8070

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STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
 NNG05CA99C/000031

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NAME OF OFFEROR OR CONTRACTOR
 SGT INC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>NEW ACCOUNTING CODE ADDED: Account code: 0000515900/6100.2550/51/FC000000/946113.04.01/000/ 2550/51/ESAX22007D/352A/1/2 Cost Center 0000515900 GI Account 6100.2550 Order FC000000 Quantity: 0 Amount: \$2,000,000.00 Percent: 47.89304 Subject To Funding: Payment Address:</p> <p>NEW ACCOUNTING CODE ADDED: Account code: 0000515900/6100.2550/51/FC000000/946113.04.01/000/ 2550/51/ESAX22007R/352A/2/3 Cost Center 0000515900 GI Account 6100.2550 Order FC000000 Quantity: 0 Amount: \$1,000,000.00 Percent: 23.94652 Subject To Funding: Payment Address:</p> <p>NEW ACCOUNTING CODE ADDED: Account code: 0000515900/6100.2550/51/FC000000/946113.04.01/000/ 2550/51/EXCX22007D/352A/3/4 Cost Center 0000515900 GI Account 6100.2550 Order FC000000 Quantity: 0 Amount: \$150,000.00 Percent: 3.59198 Subject To Funding: Payment Address: .</p> <p>NEW ACCOUNTING CODE ADDED: Account code: 0000515900/6100.2550/51/FC000000/946113.04.01/000/ 2550/51/EXCX22007R/352A/4/5 Continued ...</p>				

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
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 3 5

NAME OF OFFEROR OR CONTRACTOR
 SGT INC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	Cost Center 0000515900 GI Account 6100.2550 Order FC000000 Quantity: 0 Amount: \$150,000.00 Percent: 3.59198 Subject To Funding: Payment Address: NEW ACCOUNTING CODE ADDED: Account code: 0000517040/6100.2550/51/FC000000/869933.01.04.05.0 7.0/1/000/2550/51/ESAX22007D/CMO/5/6 Cost Center 0000517040 GI Account 6100.2550 Order FC000000 Quantity: 0 Amount: \$120,000.00 Percent: 2.87358 Subject To Funding: Payment Address: NEW ACCOUNTING CODE ADDED: Account code: 0000515820/6100.2550/51/FC000000/869933.01.04.03.0 5/000/2550/51/ESAX22007D/CMO/6/7 Cost Center 0000515820 GI Account 6100.2550 Order FC000000 Quantity: 0 Amount: \$108,000.00 Percent: 2.58622 Subject To Funding: Payment Address: NEW ACCOUNTING CODE ADDED: Account code: 0000515900/6100.2550/51/FC000000/869933.01.04.05.0 5/000/2550/51/ESAX22007D/CMO/7/8 Cost Center 0000515900 GI Account 6100.2550 Order FC000000 Quantity: 0 Amount: \$58,360.00 Percent: 1.39752 Subject To Funding: Payment Address: Continued ...				

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REFERENCE NO. OF DOCUMENT BEING CONTINUED
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NAME OF OFFEROR OR CONTRACTOR
SGT INC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>NEW ACCOUNTING CODE ADDED: Account code: 0000514000/6100.2550/51/FC000000/893482.04.05/000/ 2550/51/ESAX22007D/352A/1/2 Cost Center 0000514000 GI Account 6100.2550 Order FC000000 Quantity: 0 Amount: \$30,000.00 Percent: .7184 Subject To Funding: Payment Address:</p> <p>NEW ACCOUNTING CODE ADDED: Account code: 0000515000/6100.2550/51/FC000000/869933.02.04.02.0 5/000/2550/51/ESAX22007D/CMO/2/3 Cost Center 0000515000 GI Account 6100.2550 Order FC000000 Quantity: 0 Amount: \$20,000.00 Percent: .47893 Subject To Funding: Payment Address:</p>				

Contract NNG05CA99C
Modification Number 31
Page 5 of 5

Accordingly,

1. Revise Clause B.10, CONTRACT FUNDING (1852.232-81)
(JUN 1990), to increase the funds allotted for payment of cost and fee
as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
a. Estimated Cost	\$84,949,694	\$3,343,779	\$88,293,473
b. Award Fee	<u>7,433,099</u>	<u>292,581</u>	<u>7,725,680</u>
Total Funds	\$92,382,793	\$3,636,360	\$96,019,153

The allotment date for funds is changed to July 7, 2007 per a May 21, 2007
email from Wendy Johnson (SGT).

--END OF MODIFICATION NUMBER 31--

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE OF PAGES 1 3
2. AMENDMENT/MODIFICATION NO. 00032 SUEB BY	3. EFFECTIVE DATE See Block 16C CODE GSFC	4. REQUISITION/PURCHASE REQ. NO. See Schedule	5. PROJECT NO. (If applicable)
NASA/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771		NASA/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SGT INC Attn: NONE SPECIFIED 7701 GREENBELT RD STE 400 GREENBELT MD 20770-6521		(x) 9A. AMENDMENT OF SOLICITATION NO.	9B. DATED (SEE ITEM 11)
CODE	FACILITY CODE	X 10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C	10B. DATED (SEE ITEM 11) 02/05/2005

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended. is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Increase: \$2,679,148.00
See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) (Unilateral) FAR CLAUSE 52.232-22, LIMITATION OF FUNDS (APR 1984)

E. IMPORTANT: Contractor is not. is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to Deobligate and Obligate funds on this contract.

Accordingly,

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Klaus D. Sexton
15B. CONTRACTOR/OFFEROR	16B. UNITED STATES OF AMERICA
(Signature of person authorized to sign)	(Signature of Contracting Officer)
15C. DATE SIGNED	16C. DATE SIGNED 4/18/2007

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
NNG05CA99C/000032

PAGE OF
2 3

NAME OF OFFEROR OR CONTRACTOR
GT INC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	Delivery Location Code: GSFC NASA/Goddard Space Flight Center 8800 Greenbelt Road Greenbelt MD 20771 USA Accounting Info: B/NC:GJF PPC:PF PR:4200197758 (Deobligate \$10,702) PR:4200205445 (Obligate: \$2,689,850)				

Contract NNG05CA99C
Modification Number 32
Page 3 of 3

Accordingly,

1. Revise Clause B.10, CONTRACT FUNDING (1852.232-81)
(JUN 1990) as follows:

The purpose of this modification is to provide incremental funding for continued performance of this contract.

<u>PR</u>	<u>ACTION</u>	<u>AMOUNT</u>
4200197758	Deobligate	\$ (10,702)
4200205445	Obligate	\$2,689,850
TOTAL		\$2,679,148

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
a. Estimated Cost	\$88,293,473	\$2,463,584	90,757,057
b. Award Fee	<u>7,725,680</u>	<u>215,564</u>	<u>7,941,244</u>
Total Funds	\$96,019,153	\$2,679,148	\$98,698,301

The allotment date for funds is changed to July 20, 2007 per a June 15, 2007 email from Wendy Johnson (SGT).

--END OF MODIFICATION NUMBER 32--

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE OF PAGES 1 2
2. AMENDMENT/MODIFICATION NO. 000033	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHASE REQ. NO. See Schedule	5. PROJECT NO. (If applicable)
ED BY A/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771	CODE GSFC	7. ADMINISTERED BY (If other than Item 6) NASA/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771	CODE GSFC
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SGT INC Attn: NONE SPECIFIED 7701 GREENBELT RD STE 400 GREENBELT MD 20770-6521		(x) 9A. AMENDMENT OF SOLICITATION NO.	9B. DATED (SEE ITEM 11)
CODE	FACILITY CODE	X 10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C	10B. DATED (SEE ITEM 11) 02/05/2005

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended. is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Increase: \$6,987,418.00
B/NC: GJF PR: 4200208928 PPC: PF

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

<input type="checkbox"/>	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
<input type="checkbox"/>	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
<input type="checkbox"/>	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) (Unilateral) FAR CLAUSE 52.232-22, LIMITATION OF FUNDS (APR 1984)

E. IMPORTANT: Contractor is not. is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
This modification increases the funds allotted to this contract.

Accordingly,
Delivery Location Code: GSFC
NASA/Goddard Space Flight Center
8800 Greenbelt Road
Greenbelt MD 20771 USA

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Klaus D. Sexton
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED
15B. CONTRACTOR/OFFEROR	16B. UNITED STATES OF AMERICA (Signature of Contracting Officer)
	16C. DATE SIGNED 7/18/2007

Contract NNG05CA99C
Modification Number 33
Page 2 of 2

Accordingly,

1. Revise Clause B.10, CONTRACT FUNDING (1852.232-81) (JUN 1990), to increase the funds allotted for payment of cost and fee as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
a. Estimated Cost	\$90,757,057	\$6,425,212	\$97,182,269
b. Award Fee	<u>7,941,244</u>	<u>562,206</u>	<u>8,503,450</u>
Total Funds	\$98,698,301	\$6,987,418	\$105,685,719

The allotment date for funds is changed to August 31, 2007 per a July 16, 2007 email from Wendy Johnson (SGT).

--END OF MODIFICATION NUMBER 33--

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE OF PAGES 1 2
2. AMENDMENT/MODIFICATION NO. 0034	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHASE REQ. NO. See Schedule	5. PROJECT NO. (If applicable)
SUBMITTED BY	CODE GSFC	7. ADMINISTERED BY (If other than Item 6)	CODE GSFC
NASA/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771		NASA/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SGT INC Attn: NONE SPECIFIED 7701 GREENBELT RD STE 400 GREENBELT MD 20770-6521		(x) 9A. AMENDMENT OF SOLICITATION NO.	
		9B. DATED (SEE ITEM 11)	
		X 10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C	
		10B. DATED (SEE ITEM 11) 02/05/2005	
CODE	FACILITY CODE	11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS	

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended. is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
B/NC:GJF PR: 4200215643; 4200211484 Net Increase: \$8,409,850.00 PPC: PF

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

<input type="checkbox"/>	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
<input type="checkbox"/>	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
<input type="checkbox"/>	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
<input checked="" type="checkbox"/>	D. OTHER (Specify type of modification and authority) (Unilateral) FAR CLAUSE 52.232-22, LIMITATION OF FUNDS (APR 1984)

E. IMPORTANT: Contractor is not. is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

This modification increases the funds allotted to this contract.

Delivery Location Code: GSFC
NASA/Goddard Space Flight Center
8800 Greenbelt Road
Greenbelt MD 20771 USA

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Klaus D. Sexton
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED
15B. CONTRACTOR/OFFEROR 7540-01-152-8070 Previous edition unusable	16B. UNITED STATES OF AMERICA (Signature of Contracting Officer)
	16C. DATE SIGNED Aug 14, 2007

STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

Contract NNG05CA99C
Modification Number 34
Page 2 of 2

Accordingly,

Revise Clause B.10, CONTRACT FUNDING (1852.232-81) (JUN 1990), to increase the funds allotted for payment of cost and fee as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
a. Estimated Cost	\$97,182,269	\$7,733,266.51	\$104,915,535.51
b. Award Fee	<u>8,503,450</u>	<u>676,583.49</u>	<u>9,180,033.49</u>
Total Funds	\$105,685,719	\$8,409,850.00	\$114,095,569.00

The allotment date for funds is changed to September 21, 2007 per an August 14, 2007 email from Wendy Johnson (SGT).

--END OF MODIFICATION NUMBER 34--

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE OF PAGES 1 5
2. AMENDMENT/MODIFICATION NO. 000035	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHASE REQ. NO. See Item 12 Below	5. PROJECT NO. (If applicable)
6. ISSUED BY GSA/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771	CODE GSFC	7. ADMINISTERED BY (If other than Item 6) NASA/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771	CODE GSFC
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SGT INC Attn: NONE SPECIFIED 7701 GREENBELT RD STE 400 GREENBELT MD 20770-6521		(x)	9A. AMENDMENT OF SOLICITATION NO.
CODE			9B. DATED (SEE ITEM 11)
FACILITY CODE		X	10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C
			10B. DATED (SEE ITEM 11) 02/05/2005

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended. is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

B/NC: GJF PR:N/A PPC:PF

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43 103(b).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 52.243-2 Changes-Cost-Reimbursement (Aug 1987) Alternate II (APR 1984)
	D. OTHER (Specify type of modification and authority)

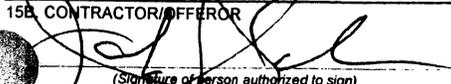
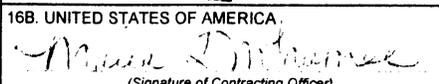
E. IMPORTANT: Contractor is not. is required to sign this document and return 3 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this ~~no-cost~~ supplemental agreement is to incorporate 1852.204-76 Security Requirements for Unclassified Information Technology Resources (May 2007) clause into the contract.

Accordingly:

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) JOHN J. SEMAUS DIRECTOR CONTRACTS	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Klaus D. Sexton MARIA L. MCNAMEE CONTRACTING OFFICER
15B. CONTRACTOR/OFFICER  (Signature of person authorized to sign)	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)
15C. DATE SIGNED 1/24/08	16C. DATE SIGNED 01/29/08

- 1) **I.1 SECTION I CLAUSES INCORPORATED BY REFERENCE: 1852.204-76 SECURITY REQUIREMENTS FOR UNCLASSIFIED INFORMATION TECHNOLOGY RESOURCES (JULY 2002) Para (c) is completed with "30 days" is hereby deleted in its entirety and replaced with the following:**

1852.204-76 SECURITY REQUIREMENTS FOR UNCLASSIFIED INFORMATION TECHNOLOGY RESOURCES (MAY 2007)

(a) The Contractor shall be responsible for information and information technology (IT) security when –

(1) The Contractor or its subcontractors must obtain physical or electronic (i.e., authentication level 2 and above as defined in National Institute of Standards and Technology (NIST) Special Publication (SP) 800-63, Electronic Authentication Guideline) access to NASA's computer systems, networks, or IT infrastructure; or

(2) Information categorized as low, moderate, or high by the Federal Information Processing Standards (FIPS) 199, Standards for Security Categorization of Federal Information and Information Systems is stored, generated, processed, or exchanged by NASA or on behalf of NASA by a contractor or subcontractor, regardless of whether the information resides on a NASA or a contractor/subcontractor's information system.

(b) IT Security Requirements.

(1) Within 30 days after contract award, a Contractor shall submit to the Contracting Officer for NASA approval an IT Security Plan, Risk Assessment, and FIPS 199, Standards for Security Categorization of Federal Information and Information Systems, Assessment. These plans and assessments, including annual updates shall be incorporated into the contract as compliance documents.

(i) The IT system security plan shall be prepared consistent, in form and content, with NIST SP 800-18, Guide for Developing Security Plans for Federal Information Systems, and any additions/augmentations described in NASA Procedural Requirements (NPR) 2810, Security of Information Technology. The security plan shall identify and document appropriate IT security controls consistent with the sensitivity of the information and the requirements of Federal Information Processing Standards (FIPS) 200, Recommended Security Controls for Federal Information Systems. The plan shall be reviewed and updated in accordance with NIST SP 800-26, Security Self-Assessment Guide for Information Technology Systems, and FIPS 200, on a yearly basis.

(ii) The risk assessment shall be prepared consistent, in form and content, with NIST SP 800-30, Risk Management Guide for Information Technology Systems, and any additions/augmentations described in NPR 2810. The risk assessment shall be updated on a yearly basis.

(iii) The FIPS 199 assessment shall identify all information types as well as the "high water mark," as defined in FIPS 199, of the processed, stored, or transmitted information necessary to fulfill the contractual requirements.

(2) The Contractor shall produce contingency plans consistent, in form and content, with NIST SP 800-34, Contingency Planning Guide for Information Technology Systems, and any additions/augmentations described in NPR 2810. The Contractor shall perform yearly "Classroom Exercises." "Functional Exercises," shall be coordinated with the Center CIOs and be conducted once every three years, with the first conducted within the first two years of contract award. These exercises are defined and described in NIST SP 800-34.

(3) The Contractor shall ensure coordination of its incident response team with the NASA Incident Response Center (NASIRC) and the NASA Security Operations Center, ensuring that incidents are reported consistent with NIST SP 800-61, Computer Security Incident Reporting Guide, and the United States Computer Emergency Readiness Team's (US-CERT) Concept of Operations for reporting security incidents. Specifically, any confirmed incident of a system containing NASA data or controlling NASA assets shall be reported to NASIRC within one hour that results in unauthorized access, loss or modification of NASA data, or denial of service affecting the availability of NASA data.

(4) The Contractor shall ensure that its employees, in performance of the contract, receive annual IT security training in NASA IT Security policies, procedures, computer ethics, and best practices in accordance with NPR 2810 requirements. The Contractor may use web-based training available from NASA to meet this requirement.

(5) The Contractor shall provide NASA, including the NASA Office of Inspector General, access to the Contractor's and subcontractors' facilities, installations, operations, documentation, databases, and personnel used in performance of the contract. Access shall be provided to the extent required to carry out IT security inspection, investigation, and/or audits to safeguard against threats and hazards to the integrity, availability, and confidentiality of NASA information or to the function of computer systems operated on behalf of NASA, and to preserve evidence of computer crime. To facilitate mandatory reviews, the Contractor shall ensure appropriate compartmentalization of NASA information, stored and/or processed, either by information systems in direct support of the contract or that are incidental to the contract.

(6) The Contractor shall ensure that system administrators who perform tasks that have a material impact on IT security and operations demonstrate knowledge appropriate to those tasks. Knowledge is demonstrated through the NASA System Administrator Security Certification Program. A system administrator is one who provides IT services (including network services, file storage, and/or web services) to someone other than themselves and takes or assumes the responsibility for the security and administrative controls of that service. Within 30 days after contract award, the Contractor shall provide to the Contracting Officer a list of all system administrator positions and personnel filling those positions, along with a schedule that ensures certification of all personnel within 90 days after contract award. Additionally, the Contractor should report all personnel changes which impact system administrator positions within 5 days of the personnel change and ensure these individuals obtain System Administrator certification within 90 days after the change.

(7) The Contractor shall ensure that NASA's Sensitive But Unclassified (SBU) information as defined in NPR 1600.1, NASA Security Program Procedural Requirements, which includes privacy information, is encrypted in storage and transmission.

(8) When the Contractor is located at a NASA Center or installation or is using NASA IP address space, the Contractor shall --

(i) Submit requests for non-NASA provided external Internet connections to the Contracting Officer for approval by the Network Security Configuration Control Board (NSCCB);

(ii) Comply with the NASA CIO metrics including patch management, operating systems and application configuration guidelines, vulnerability scanning, incident reporting, system administrator certification, and security training; and

(iii) Utilize the NASA Public Key Infrastructure (PKI) for all encrypted communication or non-repudiation requirements within NASA when secure email capability is required.

(c) Physical and Logical Access Requirements.

(1) Contractor personnel requiring access to IT systems operated by the Contractor for NASA or interconnected to a NASA network shall be screened at an appropriate level in accordance with NPR 2810 and Chapter 4, NPR 1600.1, NASA Security Program Procedural Requirements. NASA shall provide screening, appropriate to the highest risk level, of the IT systems and information accessed, using, as a minimum, National Agency Check with Inquiries (NACI). The Contractor shall submit the required forms to the NASA Center Chief of Security (CCS) within fourteen (14) days after contract award or assignment of an individual to a position requiring screening. The forms may be obtained from the CCS. At the option of NASA, interim access may be granted pending completion of the required investigation and final access determination. For Contractors who will reside on a NASA Center or installation, the security screening required for all required access (e.g., installation, facility, IT, information, etc.) is consolidated to ensure only one investigation is conducted based on the highest risk level. Contractors not residing on a NASA installation will be screened based on their IT access risk level determination only. See NPR 1600.1, Chapter 4.

(2) Guidance for selecting the appropriate level of screening is based on the risk of adverse impact to NASA missions. NASA defines three levels of risk for which screening is required (IT-1 has the highest level of risk).

(i) IT-1 -- Individuals having privileged access or limited privileged access to systems whose misuse can cause very serious adverse impact to NASA missions. These systems include, for example, those that can transmit commands directly modifying the behavior of spacecraft, satellites or aircraft.

(ii) IT-2 -- Individuals having privileged access or limited privileged access to systems whose misuse can cause serious adverse impact to NASA missions. These systems include, for example, those that can transmit commands directly modifying the behavior of payloads on spacecraft, satellites or aircraft; and those that contain the primary copy of "level 1" information whose cost to replace exceeds one million dollars.

(iii) IT-3 -- Individuals having privileged access or limited privileged access to systems whose misuse can cause significant adverse impact to NASA missions. These systems include, for example, those that interconnect with a NASA network in a way that exceeds access by the general public, such as bypassing firewalls; and systems operated by the Contractor for NASA whose function or information has substantial cost to replace, even if these systems are not interconnected with a NASA network.

(3) Screening for individuals shall employ forms appropriate for the level of risk as established in Chapter 4, NPR 1600.1.

(4) The Contractor may conduct its own screening of individuals requiring privileged access or limited privileged access provided the Contractor can demonstrate to the Contracting Officer that the procedures used by the Contractor are equivalent to NASA's personnel screening procedures for the risk level assigned for the IT position.

(5) Subject to approval of the Contracting Officer, the Contractor may forgo screening of Contractor personnel for those individuals who have proof of a --

(i) Current or recent national security clearances (within last three years);

(ii) Screening conducted by NASA within the last three years that meets or exceeds the screening requirements of the IT position; or

(iii) Screening conducted by the Contractor, within the last three years, that is equivalent to the NASA personnel screening procedures as approved by the Contracting Officer and concurred on by the CCS.

(d) The Contracting Officer may waive the requirements of paragraphs (b) and (c)(1) through (c)(3) upon request of the Contractor. The Contractor shall provide all relevant information requested by the Contracting Officer to support the waiver request.

(e) The Contractor shall contact the Contracting Officer for any documents, information, or forms necessary to comply with the requirements of this clause.

(f) At the completion of the contract, the contractor shall return all NASA information and IT resources provided to the contractor during the performance of the contract and certify that all NASA information has been purged from contractor-owned systems used in the performance of the contract.

(g) The Contractor shall insert this clause, including this paragraph (g), in all subcontracts

(1) Have physical or electronic access to NASA's computer systems, networks, or IT infrastructure; or

(2) Use information systems to generate, store, process, or exchange data with NASA or on behalf of NASA, regardless of whether the data resides on a NASA or a contractor's information system.

(End of clause)

This modification includes full and complete equitable adjustment for the above described changes. The Contractor hereby releases the Government from any liability under this contract for equitable adjustments attributable to such facts or circumstances giving rise to the aforementioned changes.

--END OF MODIFICATION NUMBER 35--

2. AMENDMENT/MODIFICATION NO. 000036	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHASE REQ. NO. See Schedule	5. PROJECT NO. (If applicable) 1 3
6. ISSUED BY NASA/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771	CODE GSFC	7. ADMINISTERED BY (If other than Item 6) NASA/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771	CODE GSFC

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SGT INC Attn: NONE SPECIFIED 7701 GREENBELT RD STE 400 GREENBELT MD 20770-6521	9A. AMENDMENT OF SOLICITATION NO. 9B. DATED (SEE ITEM 11)
--	--

CODE	FACILITY CODE
	10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C
	10B. DATED (SEE ITEM 11) 02/05/2005

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers _____ is extended. is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule	Net Increase:	\$8,133,335.00
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13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)
X	(Unilateral) FAR CLAUSE 52.232-22, LIMITATION OF FUNDS (APR 1984)

E. IMPORTANT: Contractor is not. is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
This modification increases the funds allotted to this contract

Accordingly,

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)
	Klaus D. Sexton
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED
(Signature of person authorized to sign)	16B. UNITED STATES OF AMERICA
	(Signature of Contracting Officer)
	16C. DATE SIGNED 9/11/2007

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
NNG05CA99C/000036

PAGE OF
2 3

NAME OF OFFEROR OR CONTRACTOR
SGT INC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>Delivery Location Code: GSFC NASA/Goddard Space Flight Center 8800 Greenbelt Road Greenbelt MD 20771 USA</p> <p>Accounting Info: B/NC: GJF PR: obligated 4200216706, \$8,308,791; deobligated 4200211484, \$175,456 PPC: PF</p>				

Revise Clause B.10, CONTRACT FUNDING (1852.232-81) (JUN 1990), to increase the funds allotted for payment of cost and fee as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
a. Estimated Cost	\$104,915,535.51	\$7,478,998	\$112,394,533.51
b. Award Fee	<u>9,180,033.49</u>	<u>654,337</u>	<u>9,834,370.49</u>
Total Funds	\$114,095,569.00	\$8,133,335	\$122,228,904.00

ACCOUNTING AND APPROPRIATION DATA

Funds to be obligated and deobligated:

<u>PR#</u>	<u>AMOUNT</u>
4200216706	\$8,308,791
4200211484	\$(175,456)
Total	\$8,133,335

The allotment date for funds is changed to November 2, 2007 per an September 11, 2007 email from Wendy Johnson (SGT).

--END OF MODIFICATION NUMBER 36--

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE OF PAGES 1 2
2. AMENDMENT/MODIFICATION NO. 000037	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHASE REQ. NO. See Schedule	5. PROJECT NO. (If applicable)
6. ISSUED BY NASA/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771	CODE GSFC	7. ADMINISTERED BY (If other than Item 6) NASA/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771	CODE GSFC
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SGT INC Attn: NONE SPECIFIED 7701 GREENBELT RD STE 400 GREENBELT MD 20770-6521		9A. AMENDMENT OF SOLICITATION NO. (x)	
CODE		9B. DATED (SEE ITEM 11)	
FACILITY CODE		X 10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C	
		10B. DATED (SEE ITEM 11) 02/05/2005	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended. is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
G/NC: GJF PR 420022254, \$1,923,034 Net Increase: \$1,923,034.00
PPC:PF

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) (Unilateral) FAR CLAUSE 52.232-22, LIMITATION OF FUNDS (APR 1984)

E. IMPORTANT: Contractor is not. is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

This modification increases the funds allotted to this contract

Accordingly
Delivery Location Code: GSFC
NASA/Goddard Space Flight Center
8800 Greenbelt Road
Greenbelt MD 20771 USA

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Klaus D. Sexton
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	16B. UNITED STATES OF AMERICA (Signature of Contracting Officer)
15C. DATE SIGNED	16C. DATE SIGNED 9/26/2007

Contract NNG05CA99C
Modification Number 37
Page 2 of 2

Revise Clause B.10, CONTRACT FUNDING (1852.232-81) (JUN 1990), to increase the funds allotted for payment of cost and fee as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
a. Estimated Cost	\$112,394,533.51	\$1,768,307	\$114,162,840.51
b. Award Fee	<u>9,834,370.49</u>	<u>154,727</u>	<u>9,989,097.49</u>
Total Funds	\$122,228,904.00	\$1,923,034	\$124,151,938.00

ACCOUNTING AND APPROPRIATION DATA

Funds to be obligated and deobligated:

PR#	AMOUNT
4200222254	\$1,923,034
Total	\$1,923,034

The allotment date for funds is changed to November 30, 2007 per a September 26, 2007 email from Wendy Johnson (SGT).

--END OF MODIFICATION NUMBER 37--

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE	OF	PAGES
			1	1	1

2. AMENDMENT/MODIFICATION NO. Thirty-Eight (38)	3. EFFECTIVE DATE See block 16C	4. REQUISITION/PURCHASE REQ. NO. n/a	5. PROJECT NO. (If applicable)
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6. ISSUED BY NASA Goddard Space Flight Center Code 210.M – Mission Enabling Procurement Office Greenbelt, MD 20771	CODE 210.M	7. ADMINISTERED BY (If other than Item 6) Attn: Lois McDuffee Phone: 301-286-9083 E-mail: Lois.E.McDuffee@nasa.gov	CODE 210.3
--	----------------------	--	----------------------

8. NAME AND ADDRESS OF CONTRACTOR (No. Street, county, State and ZIP: Code) SGT, Inc. 7701 Greenbelt Road Greenbelt, MD 20770-6521	(✓)	9A. AMENDMENT OF SOLICITATION NO.
		9B. DATED (SEE ITEM 11)
		10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C
		10B. DATED (SEE ITEM 13) December 22, 2004
CODE	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning one (1) copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATA SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and data specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

**13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS,
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

(✓)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER Specify type of modification and authority)

E. IMPORTANT: Contractor is not, is required to sign this document and return ___ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

Mod 38 is canceled.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Lois McDuffee Contracting Officer		
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
_____ (Signature of person authorized to sign)		BY _____ (Signature of Contracting Officer)	

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE

PAGE OF PAGES

1 | 2

2. AMENDMENT/MODIFICATION NO.

000039

3. EFFECTIVE DATE

See Block 16C

4. REQUISITION/PURCHASE REQ. NO.

See Schedule

5. PROJECT NO. (If applicable)

ISSUED BY

CODE

GSFC

7. ADMINISTERED BY (If other than Item 6)

CODE

GSFC

NASA/Goddard Space Flight Center
Procurement Operations Division
Greenbelt MD 20771

NASA/Goddard Space Flight Center
Procurement Operations Division
Greenbelt MD 20771

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)

SGT INC
Attn: NONE SPECIFIED
7701 GREENBELT RD STE 400
GREENBELT MD 20770-6521

(x) 9A. AMENDMENT OF SOLICITATION NO.

9B. DATED (SEE ITEM 11)

x 10A. MODIFICATION OF CONTRACT/ORDER NO.
NNG05CA99C

10B. DATED (SEE ITEM 11)

02/05/2005

CODE

FACILITY CODE

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended. is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

G/NC: GJF

PR 4200223677, \$5,616,743

Net Increase:
PPC: PF

\$5,616,743.00

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE

A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).

C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

D. OTHER (Specify type of modification and authority)

X (Unilateral) FAR CLAUSE 52.232-22, LIMITATION OF FUNDS (APR 1984)

E. IMPORTANT:

Contractor

is not.

is required to sign this document and return

0

copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
This modification increases the funds allotted to this contract.

Accordingly,

Delivery Location Code: GSFC
NASA/Goddard Space Flight Center
8800 Greenbelt Road
Greenbelt MD 20771 USA

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)

15B. CONTRACTOR/OFFEROR

15C. DATE SIGNED

16B. UNITED STATES OF AMERICA

16C. DATE SIGNED

(Signature of person authorized to sign)

(Signature of Contracting Officer)

7540-01-152-8070

previous edition unusable

STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

Contract NNG05CA99C
 Modification Number 39
 Page 2 of 2

Revise Clause B.10, CONTRACT FUNDING (1852.232-81) (JUN 1990), to increase the funds allotted for payment of cost and fee as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
a. Estimated Cost	\$114,162,840.51	\$5,164,821	\$119,327,661.51
b. Award Fee	<u>9,989,097.49</u>	<u>451,922</u>	<u>10,441,019.49</u>
Total Funds	\$124,151,938.00	\$5,616,743	\$129,768,681.00

ACCOUNTING AND APPROPRIATION DATA

Funds to be obligated:

PR#	AMOUNT
4200223677	\$5,616,743.00
Total	\$5,616,743.00

The allotment date for funds is changed to December 21, 2007 per a November 16, 2007 email from Wendy Johnson (SGT).

--END OF MODIFICATION NUMBER 39--

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO 000040	3. EFFECTIVE DATE 12/13/2007	4. REQUISITION/PURCHASE REQ. NO. See Schedule	5. PROJECT NO. (If applicable)	
6. ISSUED BY NASA/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771	CODE GSFC	7. ADMINISTERED BY (If other than Item 6) NASA/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771	CODE GSFC	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SGT INC Attn: NONE SPECIFIED 7701 GREENBELT RD STE 400 GREENBELT MD 20770-6521		(x) 9A. AMENDMENT OF SOLICITATION NO.	9B. DATED (SEE ITEM 11)	
CODE		FACILITY CODE	10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C	
			10B. DATED (SEE ITEM 11) 02/05/2005	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended. is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
G/NC: GJF PR: 4200229948 Net Increase: \$2,202,237.00 PPC: PF

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) (Unilateral) FAR CLAUSE 52.232-22, LIMITATION OF FUNDS (APR 1984)

E. IMPORTANT: Contractor is not. is required to sign this document and return _____ 0 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

This modification increases the funds allotted to this contract.

Accordingly,
Delivery Location Code: GSFC
NASA/Goddard Space Flight Center
8800 Greenbelt Road
Greenbelt MD 20771, USA

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) William A. Hatchl
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED
15D. 7540-01-152-8070 Previous edition unusable	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)
	16C. DATE SIGNED DEC 17 2007

Contract NNG05CA99C
 Modification Number 40
 Page 2 of 2

Revise Clause B.10, CONTRACT FUNDING (1852.232-81) (JUN 1990), to increase the funds allotted for payment of cost and fee as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
a. Estimated Cost	\$119,327,661.51	\$2,025,064.00	\$121,352,725.51
b. Award Fee	<u>10,441,019.49</u>	<u>177,173.00</u>	<u>10,618,192.49</u>
Total Funds	\$129,768,681.00	\$2,202,237.00	\$131,970,918.00

ACCOUNTING AND APPROPRIATION DATA

Funds to be obligated:

PR#	AMOUNT
4200229948	\$2,202,237.00
Total	\$2,202,237.00

The allotment date for funds is changed to January 25, 2008 per a December 13, 2007 email from Wendy Johnson (SGT).

--END OF MODIFICATION NUMBER 39--

2. AMENDMENT/MODIFICATION NO. 000041	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHASE REQ. NO. See Schedule	5. PROJECT NO. (If applicable)
6. ISSUED BY NASA/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771	CODE GSFC	7. ADMINISTERED BY (If other than Item 6) NASA/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771	CODE GSFC

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SGT INC Attn: NONE SPECIFIED 7701 GREENBELT RD STE 400 GREENBELT MD 20770-6521	9A. AMENDMENT OF SOLICITATION NO. 9B. DATED (SEE ITEM 11)
--	--

10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C	10B. DATED (SEE ITEM 11) 02/05/2005
CODE	FACILITY CODE

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended. is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) G/NC: GJF; PR: 4200229948, \$6,566,562.00;	Net Increase: PPC:PF	\$6,566,562.00
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13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

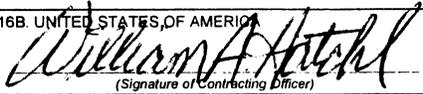
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority) X (Unilateral) FAR CLAUSE 52.232-22, LIMITATION OF FUNDS (APR 1984)

E. IMPORTANT: Contractor is not. is required to sign this document and return _____ 0 _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
This modification increases the funds allotted to this contract.

Accordingly
Delivery Location Code: GSFC
NASA/Goddard Space Flight Center
8800 Greenbelt Road
Greenbelt MD 20771 USA

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) William A. Hatchl
15B. CONTRACTOR/OFFEROR	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)
(Signature of person authorized to sign)	16C. DATE SIGNED DEC 21 2007

Contract NNG05CA99C
 Modification Number 41
 Page 2 of 2

Revise Clause B.10, CONTRACT FUNDING (1852.232-81) (JUN 1990), to increase the funds allotted for payment of cost and fee as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
a. Estimated Cost	\$121,352,725.51	\$6,038,218.00	\$127,390,943.51
b. Award Fee	<u>10,618,192.49</u>	<u>528,344.00</u>	<u>11,146,536.49</u>
Total Funds	\$131,970,918.00	\$6,566,562.00	\$138,537,480.00

ACCOUNTING AND APPROPRIATION DATA

Funds to be obligated:

<u>PR#</u>	<u>AMOUNT</u>
4200231710	\$6,566,562.00
Total	\$6,566,562.00

The allotment date for funds is changed to February 22, 2008 per a December 20, 2007 email from Wendy Johnson (SGT).

--END OF MODIFICATION NUMBER 41--

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE OF PAGES 1 2
2. AMENDMENT/MODIFICATION NO. 000042	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
ISSUED BY GSA/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771	CODE GSFC	7. ADMINISTERED BY (If other than Item 6) NASA/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771	CODE GSFC
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SGT INC Attn: NONE SPECIFIED 7701 GREENBELT RD STE 400 GREENBELT MD 20770-6521		(x) 9A. AMENDMENT OF SOLICITATION NO.	9B. DATED (SEE ITEM 11)
CODE	FACILITY CODE	X 10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C	10B. DATED (SEE ITEM 11) 02/05/2005

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended. is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

PGrp: GJF

PPC: PF

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) (UNILATERAL) CLAUSE G.5, AWARD FEE FOR SERVICE CONTRACTS

E. IMPORTANT: Contractor is not. is required to sign this document and return _____ 0 _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

This modification issues the award fee determination for the Fifth (5th) Award Fee Evaluation Period (February 1, 2007 - July 31, 2007).

Accordingly,

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Lois E. McDuffee
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED
16B. UNITED STATES OF AMERICA (Signature of Contracting Officer)	16C. DATE SIGNED 01-17-2008

7540-01-152-8070
Previous edition unusable

STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

Accordingly,

1. This modification recognizes the Award Fee earned for the fifth (5th) evaluation period (February 1, 2007 - July 31, 2007). The contractor earned \$2,230,703 or 96% of the total available award fee of \$2,323,044.
2. Provisional award fee vouchers submitted for payment during the fifth (5th) evaluation period are as follows:

FEE VOUCHER NO.	AMOUNT
Inv#29F	\$ 303,704
Inv#31F	\$ 275,920
Inv#32F	\$ 268,988
Inv#33F	\$ 332,766
Inv#34F	\$ 309,208
TOTAL	\$ 1,490,586

3. The net Award Fee amount to be paid for the 5th Award Fee Evaluation period is as follows:

5th Period Earned Award Fee	\$2,230,703
Less Provisional Fee Payments	<u>-\$1,490,586</u>
Net Award Fee Amount to be Paid	<u>\$740,117</u>

--END OF MODIFICATION NUMBER 42--

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE OF PAGES 1 2
2. AMENDMENT/MODIFICATION NO. 000043	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
6. ISSUED BY NASA/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771	CODE GSFC	7. ADMINISTERED BY (If other than Item 6) NASA/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771	CODE GSFC
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SGT INC Attn: NONE SPECIFIED 7701 GREENBELT RD STE 400 GREENBELT MD 20770-6521		(x) 9A. AMENDMENT OF SOLICITATION NO.	9B. DATED (SEE ITEM 11)
CODE	FACILITY CODE	x 10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C	10B. DATED (SEE ITEM 11) 02/05/2005

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers _____ is extended. _____ is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
B/NC: GJF PR: N/A PPC: PF

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 43.103 (a) Bilateral
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor _____ is not. is required to sign this document and return 3 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
The purpose of this no-cost supplemental agreement is to replace NFS 1852.225-70 Export Licenses (FEB 2000) with 1852.225-70 Export Licenses (Alternate I) (FEB 2000).

Accordingly,

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.			
15A. NAME AND TITLE OF SIGNER (Type or print) JOHN J. SCHMAUS DIRECTOR, CONTRACTS	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) William A. Hatchl	15B. CONTRACTOR/OFFEROR 	16B. UNITED STATES OF AMERICA
15C. DATE SIGNED 1/15/2008	16C. DATE SIGNED JAN 17 2008		

1) **H.10 1852.225-70 EXPORT LICENSES (FEB 2000)** is hereby deleted in its entirety and replaced with the following:

1852.225-70 EXPORT LICENSES (ALTERNATE I) (FEB 2000)

(a) The Contractor shall comply with all U.S. export control laws and regulations, including the International Traffic in Arms Regulations (ITAR), 22 CFR Parts 120 through 130, and the Export Administration Regulations (EAR), 15 CFR Parts 730 through 799, in the performance of this contract. In the absence of available license exemptions/exceptions, the Contractor shall be responsible for obtaining the appropriate licenses or other approvals, if required, for exports of hardware, technical data, and software, or for the provision of technical assistance.

(b) The Contractor shall be responsible for obtaining export licenses, if required, before utilizing foreign persons in the performance of this contract, including instances where the work is to be performed on-site at [*insert name of NASA installation*], where the foreign person will have access to export-controlled technical data or software.

(c) The Contractor shall be responsible for all regulatory record keeping requirements associated with the use of licenses and license exemptions/exceptions.

(d) The Contractor shall be responsible for ensuring that the provisions of this clause apply to its subcontractors.

(e) The Contractor may request, in writing, that the Contracting Officer authorize it to export ITAR-controlled technical data (including software) pursuant to the exemption at 22 CFR 125.4(b)(3). The Contracting Officer or designated representative may authorize or direct the use of the exemption where the data does not disclose details of the design, development, production, or manufacture of any defense article.

This modification includes full and complete equitable adjustment for the above described changes. The Contractor hereby releases the Government from any liability under this contract for equitable adjustments attributable to such facts or circumstances giving rise to the aforementioned changes.

--END OF MODIFICATION NUMBER 43--

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE OF PAGES 1 2
2. AMENDMENT/MODIFICATION NO. 000044	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHASE REQ. NO. See Schedule	5. PROJECT NO. (If applicable)
ISSUED BY NASA/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771	CODE GSFC	7. ADMINISTERED BY (If other than Item 6) NASA/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771	CODE GSFC
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SGT INC Attn: NONE SPECIFIED 7701 GREENBELT RD STE 400 GREENBELT MD 20770-6521		(x) 9A. AMENDMENT OF SOLICITATION NO.	9B. DATED (SEE ITEM 11)
CODE	FACILITY CODE	x 10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C	10B. DATED (SEE ITEM 11) 02/05/2005

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended. is not extended.
 Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
 B/NC: GJF; PR: 4200233106; Net Increase: \$3,639,700.00
 PPC: PF

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) (Unilateral) FAR CLAUSE 52.232-22, LIMITATION OF FUNDS (APR 1984)

E. IMPORTANT: Contractor is not. is required to sign this document and return _____ 0 _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
 This modification increases the funds allotted to this contract.

Accordingly,
 Delivery Location Code: GSFC
 NASA/Goddard Space Flight Center
 8800 Greenbelt Road
 Greenbelt MD 20771 USA

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Lois E. McDuffee		
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA <i>Lois E. McDuffee</i> (Signature of Contracting Officer)	16C. DATE SIGNED 01-17-2008
(Signature of person authorized to sign)			

SN 7540-01-152-8070
 Previous edition unusable

STANDARD FORM 30 (REV. 10-83)
 Prescribed by GSA
 FAR (48 CFR) 53.243

Contract NNG05CA99C
 Modification Number 44
 Page 2 of 2

Revise Clause B.10, CONTRACT FUNDING (1852.232-81) (JUN 1990), to increase the funds allotted for payment of cost and fee as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
a. Estimated Cost	\$127,390,943.51	\$3,346,881.00	\$130,737,824.51
b. Award Fee	<u>11,146,536.49</u>	<u>292,819.00</u>	<u>11,439,355.49</u>
Total Funds	\$138,537,480.00	\$3,639,700.00	\$142,177,180.00

ACCOUNTING AND APPROPRIATION DATA

Funds to be obligated:

PR#	AMOUNT
4200233106	\$3,639,700.00
Total	\$3,639,700.00

The allotment date for funds is changed to March 13, 2008 per a January 15, 2008 email from Wendy Johnson (SGT).

--END OF MODIFICATION NUMBER 44--

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES	
				1 2	
2. AMENDMENT/MODIFICATION NO. 000045		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. See Schedule	
6. ISSUED BY A/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771		7. ADMINISTERED BY (If other than Item 6) NASA/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771		5. PROJECT NO. (If applicable) GSFC	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SGT INC Attn: NONE SPECIFIED 7701 GREENBELT RD STE 400 GREENBELT MD 20770-6521		(x) 9A. AMENDMENT OF SOLICITATION NO.		9B. DATED (SEE ITEM 11)	
CODE		FACILITY CODE		x 10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C	
				10B. DATED (SEE ITEM 11) 02/05/2005	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended. is not extended.
 Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Increase: \$7,691,470.00
 See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) (Unilateral) FAR CLAUSE 52.232-22, LIMITATION OF FUNDS (APR 1984)

E. IMPORTANT: Contractor is not. is required to sign this document and return _____ 0 _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
 This modification increases the funds allotted to the contract.

Accordingly,
 Accounting Info: B/NC: GJF PR:
 4200233406, \$62,000; 4200236411; \$7,629,470
 PPC: PF

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Lois E. McDuffee	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA <i>Lois E. McDuffee</i> (Signature of Contracting Officer)	16C. DATE SIGNED 2/6/08

Contract NNG05CA99C
 Modification Number 45
 Page 2 of 2

Revise Clause B.10, CONTRACT FUNDING (1852.232-81) (JUN 1990), to increase the funds allotted for payment of cost and fee as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
a. Estimated Cost	\$130,737,824.51	\$7,072,681.00	\$137,810,505.51
b. Award Fee	<u>11,439,355.49</u>	<u>618,789.00</u>	<u>12,058,144.49</u>
Total Funds	\$142,177,180.00	\$7,691,470.00	\$149,868,650.00

ACCOUNTING AND APPROPRIATION DATA

Funds to be obligated:

<u>PR#</u>	<u>AMOUNT</u>
4200233406	\$62,000.00
4200236411	\$7,629,470.00
Total	\$7,691,470.00

The allotment date for funds is changed to April 25, 2008 per a February 6, 2008 email from Wendy Johnson (SGT).

--END OF MODIFICATION NUMBER 45--

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE

PAGE OF PAGES

1 3

2. AMENDMENT/MODIFICATION NO.

3. EFFECTIVE DATE

4. REQUISITION/PURCHASE REQ. NO.

5. PROJECT NO. (If applicable)

00046

See Block 16C

See Schedule

ISSUED BY

CODE

GSFC

CODE

GSFC

NASA/Goddard Space Flight Center
Procurement Operations Division
Greenbelt MD 20771

NASA/Goddard Space Flight Center
Procurement Operations Division
Greenbelt MD 20771

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)

SGT INC
Attn: NONE SPECIFIED
7701 GREENBELT RD STE 400
GREENBELT MD 20770-6521

(x) 9A. AMENDMENT OF SOLICITATION NO.

9B. DATED (SEE ITEM 11)

x 10A. MODIFICATION OF CONTRACT/ORDER NO.
NNG05CA99C

10B. DATED (SEE ITEM 11)

02/05/2005

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended. is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

See Schedule

Net Increase:

\$1,806,656.00

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) (Unilateral) FAR CLAUSE 52.232-22, LIMITATION OF FUNDS (APR 1984)

E. IMPORTANT: Contractor is not. is required to sign this document and return _____ 0 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to Deobligate and Obligate funds on this contract.

Accordingly,

Delivery Location Code: GSFC
NASA/Goddard Space Flight Center
8800 Greenbelt Road
Greenbelt MD 20771 USA

Accounting Info: B/NC: GJF PPC: PF

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)

Lois E. McDuffee

CONTRACTING OFFICER

15B. CONTRACTOR/OFFEROR

15C. DATE SIGNED

16B. UNITED STATES OF AMERICA

16C. DATE SIGNED

(Signature of person authorized to sign)

Lois E. McDuffee
(Signature of Contracting Officer)

3-14-2008

FORM 7540-01-152-8070
Previous edition unusable

STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
NNG05CA99C/000046

PAGE OF
2 3

NAME OF OFFEROR OR CONTRACTOR
GT INC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	PR:4200231710 (Deobligate \$310,000) 4200237494 (Obligate \$2,116,656)				

Contract NNG05CA99C
Modification Number 46
Page 3 of 3

Accordingly,

1. Revise Clause B.10, CONTRACT FUNDING (1852.232-81)
(JUN 1990) as follows:

The purpose of this modification is to provide incremental funding for continued performance of this contract.

<u>PR</u>	<u>ACTION</u>	<u>AMOUNT</u>
4200231710	Deobligate	\$ (310,000)
4200237494	Obligate	\$2,116,656
TOTAL		\$1,806,656

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
a. Estimated Cost	\$137,810,505.51	\$1,661,293.00	139,471,798.51
b. Award Fee	<u>12,058,144.49</u>	<u>145,363.00</u>	<u>12,203,507.49</u>
Total Funds	\$149,868,650.00	\$1,806,656.00	\$151,675,306.00

The allotment date for funds is changed to May 5, 2008 per a March 12, 2008 email from Wendy Johnson (SGT).

--END OF MODIFICATION NUMBER 46--

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE OF PAGES 1 2
2. AMENDMENT/MODIFICATION NO. 000047	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHASE REQ. NO. See Schedule	5. PROJECT NO. (If applicable)
6. ISSUED BY GSA/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771	CODE GSFC	7. ADMINISTERED BY (If other than Item 6) NASA/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771	CODE GSFC
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SGT INC 7701 GREENBELT RD STE 400 GREENBELT MD 20770-6521		(x) 9A. AMENDMENT OF SOLICITATION NO.	9B. DATED (SEE ITEM 11)
CODE	FACILITY CODE	x 10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C	10B. DATED (SEE ITEM 11) 02/05/2005

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended. is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Increase: \$8,173,149.00
B/NC: GJF PPC: PF PR: 4200243636; \$8,173,149

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) (Unilateral) FAR CLAUSE 52.232-22, LIMITATION OF FUNDS (APR 1984)

E. IMPORTANT: Contractor is not. is required to sign this document and return 0 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to Obligate funds to this contract.

Accordingly,

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Lois E. McDuffee CONTRACTING OFFICER
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED
16B. UNITED STATES OF AMERICA <i>Lois E. McDuffee</i> (Signature of Contracting Officer)	16C. DATE SIGNED 3-27-2008

Contract NNG05CA99C
Modification Number 47
Page 2 of 2

Accordingly,

1. Revise Clause B.10, CONTRACT FUNDING (1852.232-81)
(JUN 1990) as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
a. Estimated Cost	\$139,471,798.51	\$7,534,314.00	147,006,112.51
b. Award Fee	<u>12,203,507.49</u>	<u>638,835.00</u>	<u>12,842,342.49</u>
Total Funds	\$151,675,306.00	\$8,173,149.00	\$159,848,455.00

ACCOUNTING & APPROPRIATION DATA

<u>PR</u>	<u>ACTION</u>	<u>AMOUNT</u>
4200243636	Obligate	\$8,173,149.00
TOTAL		\$8,173,149.00

The allotment date for funds is changed to June 6, 2008 per a March 26, 2008 email from Wendy Johnson (SGT).

--END OF MODIFICATION NUMBER 47--

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE OF PAGES 1 2
2. AMENDMENT/MODIFICATION NO. 000048	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
6. ISSUED BY /Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771	CODE GSFC	7. ADMINISTERED BY (If other than Item 6) NASA/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771	CODE GSFC
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SGT INC 7701 GREENBELT RD STE 400 GREENBELT MD 20770-6521		(x) 9A. AMENDMENT OF SOLICITATION NO.	9B. DATED (SEE ITEM 11)
CODE		FACILITY CODE	X 10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C
			10B. DATED (SEE ITEM 11) 02/05/2005

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended. is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

B/NC: GJF PPC: PF PR: 4200246788; \$14,873,177.30

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) (Unilateral) FAR CLAUSE 52.232-22, LIMITATION OF FUNDS (APR 1984)

E. IMPORTANT: Contractor is not. is required to sign this document and return _____ 0 _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to increase the funds to the contract.

Accordingly,

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Maria L. Myer Contracting Officer
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED
(Signature of person authorized to sign)	16B. UNITED STATES OF AMERICA Maria L. Myer (Signature of Contracting Officer)
	16C. DATE SIGNED 4/27/05

Contract NNG05CA99C
Modification Number 48
Page 2 of 2

Accordingly,

1. Revise Clause B.10, CONTRACT FUNDING (1852.232-81)
(JUN 1990) as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
a. Estimated Cost	\$147,006,112.51	\$13,678,371.55	\$160,684,484.06
b. Award Fee	<u>12,842,342.49</u>	<u>1,194,805.75</u>	<u>14,037,148.24</u>
Total Funds	\$159,848,455.00	\$14,873,177.30	\$174,721,632.30

ACCOUNTING & APPROPRIATION DATA

<u>PR</u>	<u>ACTION</u>	<u>AMOUNT</u>
4200246788	Obligate	\$14,873,177.30
TOTAL		\$14,873,177.30

The allotment date for funding is changed to August 8, 2008 per an email from Wendy Johnson (SGT) dated April 21, 2008.

--END OF MODIFICATION NUMBER 48--

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE 1 OF 2 PAGES
2. AMENDMENT/MODIFICATION NO. Forty-nine (49)	3. EFFECTIVE DATE See block 16C	4. REQUISITION/PURCHASE REQ. NO. n/a	5. PROJECT NO. (If applicable)	
6. ISSUED BY NASA Goddard Space Flight Center Code 210.M – Mission Enabling Procurement Office Greenbelt, MD 20771	CODE 210.M	7. ADMINISTERED BY (If other than Item 6) Attn: Lois McDuffee Phone: 301-286-9083 E-mail: Lois.E.McDuffee@nasa.gov		CODE 210.3
8. NAME AND ADDRESS OF CONTRACTOR (No. Street, county, State and ZIP Code) SGT, Inc. 7701 Greenbelt Road Greenbelt, MD 20770-6521			9A. AMENDMENT OF SOLICITATION NO.	
			9B. DATED (SEE ITEM 11)	
			10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C	
			10B. DATED (SEE ITEM 13) December 22, 2004	
CODE	FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning one (1) copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATA SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and data specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

B/NC: GDK PPC: PF

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(-) A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).

C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

D. OTHER Specify type of modification and authority
 Unilateral Pursuant to NFS 1852.216-76 Award Fee for Service Contracts

E. IMPORTANT: Contractor is not, is required to sign this document and return ___ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to issue the award fee determination.

(See page 2.)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Maria L. McNamee Contracting Officer		
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY <i>Maria L. McNamee</i> (Signature of Contracting Officer)	16C. DATE SIGNED 05/07/08
(Signature of person authorized to sign)			

1. This modification recognizes award fee earned for the sixth (6) evaluation period from August 1, 2007 through January 31, 2008, (Ref: FDO Letter dated 04/21/08). Of the total available sixth period award fee of \$2,911,134, the Contractor earned \$2,775,475 or 95.3 percent of available award fee. This modification also reduces the sixth period fee due to fee invoice #21F (\$241,482) that has not been included in any award fee modifications as a provisional payment.

(a) The following provisional fee payments have been submitted for payment during this period and the last payment (21F) is a previously unrecognized payment:

Fee Invoice No.	Amount Paid
35F	\$353,690.00
36F	\$434,812.00
37F	\$374,151.00
38F	\$340,191.00
39F	\$437,678.00
41F	\$372,660.00
21F	\$241,482.00
Total Amount of Provisional Fee Payments	\$2,554,664.00

(b) The total amount of earned award fee less the sum of provisional payments follows:

Sixth (6) Period Earned Award Fee	\$2,775,475.00
Less the Provisional Fee Payments	(\$2,554,664.00)
NET PAYABLE AMOUNT DUE:	\$220,811.00

(c) AN AMOUNT OF \$220,811 SHALL BE PAID TO THE CONTRACTOR UPON EXECUTION OF THIS MODIFICATION.

2. All other terms and conditions of the contract remain unchanged.

(END OF MODIFICATION 49)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE

PAGE OF PAGES

1 2

2. AMENDMENT/MODIFICATION NO.

000050

3. EFFECTIVE DATE

See Block 16C

4. REQUISITION/PURCHASE REQ. NO.

See Schedule

5. PROJECT NO. (If applicable)

ISSUED BY

CODE

GSFC

7. ADMINISTERED BY (If other than Item 6)

CODE

GSFC

NASA/Goddard Space Flight Center
Procurement Operations Division
Greenbelt MD 20771

NASA/Goddard Space Flight Center
Procurement Operations Division
Greenbelt MD 20771

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)

SGT INC
7701 GREENBELT RD STE 400
GREENBELT MD 20770-6521

(x) 9A. AMENDMENT OF SOLICITATION NO.

9B. DATED (SEE ITEM 11)

x 10A. MODIFICATION OF CONTRACT/ORDER NO.
NNG05CA99C

10B. DATED (SEE ITEM 13)

02/05/2005

CODE

FACILITY CODE

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended. is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

B/NC: GJF PR: 4200250555; Net Increase: \$3,764,231.70
PPC: PF

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE

- A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
- B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
- C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
- D. OTHER (Specify type of modification and authority)
X (Unilateral) FAR Clause 52.232-22, LIMITATION OF FUNDS (APR 1984)

E. IMPORTANT: Contractor is not. is required to sign this document and return _____ 0 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this modification is to increase the funds allotted to this contract.

Accordingly,

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)

LOIS E McDuffee CONTRACTING OFFICER

15B. CONTRACTOR/OFFEROR

15C. DATE SIGNED

16B. UNITED STATES OF AMERICA

16C. DATE SIGNED

(Signature of person authorized to sign)

(Signature of Contracting Officer)

5-14-2008

7540-01-152-8070

Previous edition unusable

STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

Contract NNG05CA99C
Modification Number 50
Page 2 of 2

Accordingly,

1. Revise Clause B.10, CONTRACT FUNDING (1852.232-81)
(JUN 1990) as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
a. Estimated Cost	\$160,684,484.06	\$3,461,680.80	\$164,146,164.86
b. Award Fee	<u>14,037,148.24</u>	<u>302,550.90</u>	<u>14,339,699.14</u>
Total Funds	\$174,721,632.30	\$3,764,231.70	\$178,485,864.00

ACCOUNTING & APPROPRIATION DATA

<u>PR</u>	<u>ACTION</u>	<u>AMOUNT</u>
4200250555	Obligate	\$3,764,231.70
TOTAL		\$3,764,231.70

The allotment date for funding is changed to August 22, 2008 per an email from Wendy Johnson (SGT) dated May 12, 2008.

--END OF MODIFICATION NUMBER 50--

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE OF PAGES 1 2
2. AMENDMENT/MODIFICATION NO. 000051	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHASE REQ. NO. See Schedule	5. PROJECT NO. (If applicable)
6. ISSUED BY /Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771	CODE GSFC	7. ADMINISTERED BY (If other than Item 6) NASA/Goddard Space Flight Center Procurement Operations Division Greenbelt MD 20771	CODE GSFC
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) SGT INC 7701 GREENBELT RD STE 400 GREENBELT MD 20770-6521		(x) 9A. AMENDMENT OF SOLICITATION NO.	
CODE		9B. DATED (SEE ITEM 11)	
FACILITY CODE		X 10A. MODIFICATION OF CONTRACT/ORDER NO. NNG05CA99C	
		10B. DATED (SEE ITEM 13) 02/05/2005	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended. is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule Net Increase: \$4,356,225.00

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) (Unilateral) FAR Clause 52.232-22, LIMITATION OF FUNDS (APR 1984)

E. IMPORTANT: Contractor is not. is required to sign this document and return _____ 0 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
The purpose of this modification is to Deobligate and Obligate funds on this contract.

Accordingly,
Accounting Info: B/NC: GJF PPC:PF PR:
4200246788, 4200243636 Deobligate \$105,120;
4200252909 Obligate \$4,461,345

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Lois E. McDuffee CONTRACTING OFFICER
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED
(Signature of person authorized to sign)	16B. UNITED STATES OF AMERICA <i>Lois E. McDuffee</i> (Signature of Contracting Officer)
	16C. DATE SIGNED 6-12-2008

Contract NNG05CA99C
Modification Number 51
Page 2 of 2

Accordingly,

1. Revise Clause B.10, CONTRACT FUNDING (1852.232-81)
(JUN 1990) as follows:

	<u>FROM</u>	<u>BY</u>	<u>TO</u>
a. Estimated Cost	\$164,146,164.86	\$4,006,093.00	\$168,152,257.86
b. Award Fee	<u>14,339,699.14</u>	<u>350,132.00</u>	<u>14,689,831.14</u>
Total Funds	\$178,485,864.00	\$4,356,225.00	\$182,842,089.00

ACCOUNTING & APPROPRIATION DATA

<u>PR</u>	<u>ACTION</u>	<u>AMOUNT</u>
4200252909	Obligate	\$4,461,345.00
4200246788	Deobligate	\$ 100,000.00
4200243636	Deobligate	\$ 5,120.00
TOTAL		\$4,356,225.00

The allotment date for funding is changed to September 12, 2008 per an email from Wendy Johnson (SGT) dated June 12, 2008.

--END OF MODIFICATION NUMBER 51--

NN605c A99C

Multi-Disciplinary Engineering

Technology Service

(METS)

Source Selection Statement

C114105)

**SELECTION STATEMENT
FOR
THE MULTI-DISCIPLINARY ENGINEERING AND TECHNOLOGY
SERVICES PROCUREMENT**

On December 13, 2004, I met with senior officials from Goddard Space Flight Center (GSFC) to hear the Source Evaluation Board (SEB) present its proposal evaluation findings for the Multi-Disciplinary Engineering and Technology Services (METS) procurement.

PROCUREMENT DESCRIPTION

The METS competitive procurement is a partial follow-on to the current Multi-Disciplinary Engineering and Development Services (MEDS) contract (NAS5-99124). [The Electrical Systems Engineering Services (ESES) procurement is the other MEDS partial follow-on effort which is being separately competed]. The principal purpose of the METS contract is to provide engineering services for the formulation, design, development, non-flight fabrication, integration, testing, verification, and operations of space flight and ground system hardware and software, including development and validation of new technologies to enable future Space and Earth Science missions. The emphasis in engineering services will be in the areas of systems engineering, software engineering, information technology, and Guidance Navigation and Control (GN&C) services.

This competitive procurement will result in an 8(a) cost-plus-award-fee (CPAF), indefinite delivery, indefinite quantity (IDIQ) contract. The minimum amount of supplies or services that shall be ordered is \$1,000,000 with a maximum of \$250,000,000. The contract will have an effective ordering period of 5-years from the contractual effective date.

EVALUATION PROCEDURES

The evaluation was conducted in accordance with the source selection procedures identified in FAR 15.3 and NASA FAR Supplement 1815.3, and the RFP evaluation criteria. The RFP stated that the factors used for evaluation are Mission Suitability, Cost/Price, and Past Performance. The RFP specified the relative order of importance of the evaluation factors as follows:

“The Cost Factor is significantly less important than the combined importance of the Mission Suitability Factor and the Past Performance Factor. As individual factors, the Mission Suitability Factor is the most important and the Past Performance Factor is more important than the Cost Factor.”

Within Mission Suitability, the following four subfactors were evaluated and scored using the identified weights to allocate 1,000 available points:

MISSION SUITABILITY SUBFACTORS	AVAILABLE POINTS
Subfactor A: Understanding the Requirements	400
Subfactor B: Capabilities	200
Subfactor C: Management Plan	350
Subfactor D: Safety and Health Plan	50
Total	1000

The Past Performance evaluation was conducted in accordance with FAR 15.305(a)(2) and NFS 1815.305(a)(2), "Past performance evaluation". Within the Past Performance Factor, an Offeror, along with its teaming partner(s) and/or major subcontractor(s), were evaluated in the following four areas: Technical Performance, Schedule Performance, Cost Performance, and Business Relations. This factor was not point scored. One of the following adjectival ratings was assigned: Excellent, Very Good, Good, Fair or Poor.

Regarding the Cost/Price Factor, the RFP stated that the proposed costs of the Representative Task Orders (RTOs) and the rates proposed in Attachment B will be evaluated for reasonableness and cost realism. The Cost/Price Factor evaluation was conducted in accordance with FAR 15.305(a)(1) and NFS 1815.305(a)(1)(B) and (C). The SEB used proposed indirect rate ceilings in determining probable cost. In accordance with the NFS, the SEB analysis included "a level of confidence in the probable cost assessment for each proposal." The proposed and probable total cost-plus-award-fee and loaded average hourly cost were presented to the Source Selection Authority. The RFP stated that Mission Suitability scores will be downwardly adjusted based on the degree of cost realism. These adjustments were based on the structured approach contained in RFP Provision M.4.3, Adjustments for Cost Realism.

EVALUATION PROCESS

NASA's Source Selection Authority for this procurement appointed the SEB, along with a team of Technical and Business Consultants, comprised of members from appropriate disciplines, to assist in the proposal evaluation. The SEB developed and incorporated into the Request for Proposal (RFP) a set of detailed criteria for evaluation. NASA issued the RFP on June 7, 2004. Five timely proposals were received on July 9, 2004 from the following contractors:

1. **ASRC Aerospace Corporation (ASRC)**
2. **SGT, Inc. (SGT)**
3. **Client Network Services, Inc. (CNSI)**
4. **Morgan Research Corporation (Morgan)**
5. **STEM International, Inc. (STEM)**

The SEB completed its initial evaluation of proposals and documented its findings in a written report dated December 13, 2004. During the initial evaluations, the SEB team

determined, in accordance with NASA FAR Supplement (NFS) 1815.305-70, that the proposal submitted by STEM did not represent a reasonable initial effort to address the essential requirements of the RFP's Subfactor A and contained major deficiencies and omissions. Therefore, the STEM proposal was removed from further consideration in accordance with NFS 1815.305-70(a)(1)&(3).

MISSION SUITABILITY EVALUATION

Based on the scoring of each subfactor in accordance with the weights delineated in the RFP, the ranking of the offeror's total Mission Suitability points is as follows:

1. SGT, Inc.
2. ASRC Aerospace Corporation
3. Client Network Services, Inc.
4. Morgan Research Corporation

The substance of the SEB's evaluation of Mission Suitability for each proposal follows:

SGT

SGT received an overall adjectival rating of "Very Good," and the highest Mission Suitability score by a significant margin.

In Subfactor A: Understanding the Requirements, SGT was rated "Very Good" receiving three significant strengths, seven strengths, and eight weaknesses. SGT received a significant strength for demonstrating a thorough, sound and complete understanding and technical approach toward satisfying the Statement of Work (SOW) Functions 3A, Project Management; 3B, Mission Systems Engineering; 3E, Detector Engineering Services; 3F, Software Specific Services; 3G, Data Systems Management Services; and 3I, Robotic Specific Services. SGT received a significant strength for their approach to SOW Function 8, Education Services, for the development of a Systems Engineering Curriculum at the University of Maryland Baltimore County (UMBC). SGT also received a significant strength for demonstrated excellent direct relevant experience in meeting the requirements of SOW Function 3B, Mission Systems Engineering; 3F, Software Specific Services; 3H4 Propulsion Engineering Specific Tasks; 3H5, Propulsion Technician Specific Tasks; and 3I, Robotic Specific Services.

SGT received the following seven strengths: (1) Outstanding level of understanding and a sound technical approach toward meeting the requirements of SOW Functions 2E, Launch and Post-Launch Operations Support; 2F, Mission Assurance and Systems Safety Services; and 2G, Configuration Management Services; (2) Comprehensively addresses all ten areas of space system technologies (Function 4F) and demonstrates a thorough understanding of the requirements, and a complete technical approach regarding their understanding of the specified space system technologies; (3) The RTO 1 response clearly demonstrates an understanding and sound technical approach to problem solving by clearly laying out their process development strategy to develop the investment

criteria, to prioritize technology investment tools, and to develop methodology; (4) The RTO 3 response demonstrates an excellent technical approach with a thorough analysis of the work to be performed and a clear understanding of the required planning and analysis; (5) The RTO 5 technical approach for the Accommodation Trade Study, the Accommodation Study, and the STOP Study answers the RTO requirement in full, with exemplary details, while exhibiting realism and thoroughness; (6) The RTO 6 response demonstrates an excellent understanding of the required technical approach and of the difficulties of executing an end-to-end test of an observatory. The process for development of a comprehensive test procedure is provided in sufficient detail to demonstrate strong technical knowledge of the requirement and difficulties of this activity; and (7) The RTO 7 response demonstrates a very good understanding of the issues involved in selecting, designing, coding, and verifying the single-gyro control mode. Descriptions of the advantages and disadvantages of the possible solutions exhibits experience and knowledge.

SGT received the following eight weaknesses: (1) Does not demonstrate an adequate understanding or a thorough technical approach for meeting the requirements of SOW Function 1A, Candidate Study Services; Function 1B, Preliminary Analysis Study Services; or Function 1C, Systems Definition Study Services; (2) Does not demonstrate an adequate understanding or a complete technical approach to meeting the requirements of SOW Function 2A, Multi-disciplinary Analysis and Design Services; or Function 2B, Non-flight Fabrication Specific Tasks; (3) Demonstrates a limited understanding of SOW Function 3H1j, Formation Flying Test Bed (FFTB) Design and Development; 3H2n, Flight Dynamics Catalog/Database Maintenance; and 3H4d, Power & Electric Propulsion Systems Engineering; (4) Does not adequately address the nine areas of required support in Function 4F; and (5) The RTO 6 response identified no slack in the schedule to troubleshoot or to deal with unforeseen events. Three additional weaknesses were noted in RTO's 1, 2, and 5 for inadequate staffing plans resulting in overall minimal staffing adjustments.

In Subfactor B: Capabilities, SGT was rated "Excellent" receiving two significant strengths, two strengths, and one weakness.

SGT received a significant strength for the supporting rationale of their identified critical positions. The SGT team received a significant strength for an excellent overall total compensation plan which will contribute toward effective employee retention.

SGT received a strength for clearly identifying new positions with justification that indicates an understanding of the METS contract requirements. Another strength was received for a comprehensive workforce staffing plan that demonstrated the ability to achieve a high recruiting and retention rate.

A weakness was received for failing to submit a completed Exhibit 3, "Fringe Benefit Chart," although most of the information was provided elsewhere in the proposal.

In Subfactor C: Management Plan, SGT was rated "Excellent" receiving two significant strengths, one strength, and one weakness.

SGT received a significant strength for proposing a seamless teaming arrangement with Group Leads reporting to the METS Project Manager, which decreases redundant management. Another significant strength was SGT's award fee sharing program, which is a significant motivator for the personnel supporting the METS contract.

SGT received a strength for a thorough, sound and complete approach to Phase-In by including a comprehensive list of task elements and action items, and distinctively identifying roles and responsibilities.

SGT received a weakness for proposing to use a team member's procurement system which may add a layer of bureaucratic complication.

In Subfactor D: Safety and Health Plan, SGT was rated "Very Good" receiving one significant strength for a safety and health plan that fully addresses safety requirements including the identification of key potential METS facilities and the specific safety issues and training needs for each area.

ASRC

ASRC received an overall adjectival rating of "Good," which included the impact of a Mission Suitability point adjustment. ASRC received the second highest Mission Suitability score by a significant margin over the next closest proposal.

In Subfactor A: Understanding the Requirements, ASRC was rated "Very Good" receiving three significant strengths, five strengths, and nine weaknesses.

ASRC received a significant strength for demonstrating an outstanding level of understanding of the needs and objectives for Function 3B, Mission System Engineering; 3F, Software Specific Services; 3G, Data Systems Management Services; and 3H Guidance, Navigation and Control Engineering Services. ASRC received a significant strength for their approach to SOW Function 8, Education Services, for establishing a contract with UMBC to establish Systems Engineering Curriculum. ASRC also received a significant strength for demonstrating a significant amount of relevant experience for meeting the requirements of SOW Function 2E, Launch and Post-Launch Operations Support; 3B, Mission Systems Engineering; 3G, Data Systems Management Services; 3H, Guidance Navigation and Control Engineering Services; 3I, Robotic Specific Services; and 4F, Systems Technology Services.

ASRC received the following five strengths: (1) Demonstrates an excellent understanding of the needs and objectives for meeting the requirements of SOW Function 1A, Candidate Study Services; Function 1B, Preliminary Analysis Study Services; and Function 1C, Systems Definition Specific Tasks; (2) Demonstrates a very good understanding and a complete and thorough technical approach for SOW Function 2A,

Multi-disciplinary Analyses and Design Services; 2C, Integration, Test and Verification Services; and 2E, Launch and Post-Launch Operations Support; (3) Demonstrates an excellent understanding of the needs and objectives of SOW Function 4F, Systems Technology Services by comprehensively addressing all nine specific areas of required support and all ten areas of space system technologies; (4) The RTO 1 response provides a comprehensive solution that clearly demonstrates their understanding of the problems and their current technical capability to solve the problems. ASRC proposes an integrated solution that combines the development of technology investment criteria and the technology investment prioritization tools they are going to develop to produce the technology assessment process; and (5) The RTO 4 response demonstrates an extensive knowledge of the tools and analyses required to perform the task elements. Assumptions, task challenges and task methodologies demonstrate a good understanding of the task.

ASRC received the following nine weaknesses: (1) Does not adequately present an effective understanding or technical approach for meeting the requirements of several areas of SOW Function 4A, including Function 4A1B, X-ray, Ultraviolet, Optical and Infrared instrument systems performance testing and analysis; 4A1D, Instrument Systems signal to noise analysis; 4A1E, Advanced hyperspectral imaging concepts; 4A1G, Lossless and Lossy compression algorithms; and 4A1M, Autonomous Instrument systems; and (2) Does not demonstrate an understanding of the requirements of Function 7, Sustaining Engineering Services, by failing to discuss how the eight requirements will be implemented. Seven additional weaknesses were noted in all seven RTOs for inadequate staffing plans resulting in overall substantial staffing adjustments.

In Subfactor B: Capabilities, ASRC was rated "Very Good" receiving three strengths, and one weakness.

ASRC received a strength for an excellent description of proposed critical positions with detailed qualifications including duties/responsibilities and minimum education/experience required. Another strength was received for a comprehensive workforce staffing plan that demonstrated the ability to achieve a high recruiting and retention rate. A third strength was received for a very good total compensation plan.

ASRC received a weakness for a prohibitively high family plan health insurance premium. Also a proposed team member's 401(k) plan has a lengthy vesting schedule and no details were provided on the team member's bonus and education benefits.

In Subfactor C: Management Plan, ASRC was rated "Excellent" receiving two significant strengths, three strengths, and two weaknesses.

ASRC received a significant strength for a highly effective functional split of responsibilities, an integrated resource board, and a thorough approach for managing subcontractor problems, under-performance, and deficiencies. Another significant strength was ASRC's award fee sharing program, which is a significant motivator for the personnel supporting the METS contract.

ASRC received a strength for an approach to task order management that ensures compliance with position descriptions. A strength was received for the planned participation in the NASA Mentor-Protégé program including a letter of intent with the proposed protégé company. Another strength was received for a thorough, sound and complete approach to Phase-In by including a comprehensive list of task elements and action items, and distinctively identifying roles and responsibilities.

ASRC received a weakness for their approach under management responsibilities related to Group Leads, which most likely increases organizational redundancies and decreases efficiency of communications. Another weakness was received for a generic risk management approach which does not demonstrate a complete or thorough understanding of the risks associated with safety, technical, cost, schedule, security, export control, or damage to the environment.

In Subfactor D: Safety and Health Plan, ASRC was rated "Very Good" receiving one significant strength for a safety and health plan that fully addresses safety requirements.

CNSI

CNSI received an overall adjectival rating of "Good," which included the impact of a Mission Suitability point adjustment. CNSI received the third highest Mission Suitability score by a moderate margin over the next closest proposal.

In Subfactor A: Understanding the Requirements, CNSI was rated "Good" receiving seven strengths, two significant weaknesses, and eight weaknesses.

CNSI received the following seven strengths: (1) Very good understanding of the requirements and a sound technical approach to SOW Functions 3B, Mission Systems Engineering; and 3I, Robotic Specific Services; (2) Demonstrates a complete understanding of the needs and objectives of SOW Function 4F, Systems Technology Services. Comprehensively addresses all nine specific areas of required support in Function 4F; (3) Demonstrated experience in areas relevant to the requirements of SOW Functions 2C, Integration, Test, and Verification Services; 2E, Launch and Post-Launch Operations Support; 2F, Mission Assurance and Systems Safety; 3F, Software Specific Services; 3H1, GN&C Systems Engineering Specific Tasks; 3H1i, Balloon, UAV, and Sounding Rocket GN&C Engineering; and 3H2k, Space Vehicle Autonomous Control Design, Analysis, and Simulation; (4) The RTO 4 response demonstrates a comprehensive technical approach with a good overview of interrelations within elements of this complex task; (5) The RTO 5 demonstrates a thorough and logical summary of the work required with a clearly defined technical approach; (6) The RTO 6 response demonstrates a comprehensive execution plan; and (7) The RTO 7 response demonstrates a very good understanding and logical approach including a step-by-step approach to choosing, designing, developing, and testing with ample opportunity for Government evaluation.

CNSI received a significant weakness for failing to demonstrate an adequate understanding of the requirements and a sound technical approach to SOW Functions 2A, Multidisciplinary Analyses and Design Services; 2B, Non-Flight Fabrication, Assembly and Testing Services; 2F, Mission Assurance and System Safety Services; or 2G, Configuration Management Services. Another significant weakness was received for failing to demonstrate an understanding of the requirements and a sound technical approach to meeting the requirements of SOW Function 3A, Project Management; 3C, Instrument Systems Engineering; 3E, Detector Engineering Services; 3F, Software Specific Services; or 3H, Guidance, Navigation and Control Engineering Services.

CNSI received the following eight weaknesses: (1) Does not demonstrate a complete understanding of the requirements of SOW Function 4A, Instrument Systems Technology Services; 4D, Software Systems Technology Services; or 4F, Systems Technology Services (the ten areas of space system technologies); and (2) Does not demonstrate adequate relevant experience in response to the requirements of SOW Function 1A, Candidate Study Services; 1B, Preliminary Analysis Study Services; or 3B, Mission Systems Engineering. Six additional weaknesses were noted in RTO's 1, 2, 3, 5, 6, and 7 for inadequate staffing plans resulting in overall substantial staffing adjustments.

In Subfactor B: Capabilities, CNSI was rated "Good" receiving one strength, one significant weakness, and one weakness.

CNSI received a strength for a comprehensive workforce staffing plan that demonstrated the ability to achieve a high recruiting and retention rate.

CNSI received a significant weakness for failing to demonstrate clear and well defined critical positions for the METS requirement.

CNSI received a weakness for the proposed Source of Personnel in response to RTO 3.

In Subfactor C: Management Plan, CNSI was rated "Good" receiving four strengths, and two weaknesses.

CNSI received the following four strengths (1) An effective approach to management interaction with NASA which will improve communications; (2) The planned participation in the NASA Mentor-Protégé program including a letter of intent with the proposed protégé company; (3) A thorough, sound and complete approach to Phase-In; and (4) A good award fee sharing program.

CNSI received a weakness for an inadequate organizational structure to effectively manage the technical complexities and volume of METS tasks. Another weakness was received for failing to provide a complete list of current and future contracts of value equal to or greater than \$25M.

In Subfactor D: Safety and Health Plan, CNSI was rated "Very Good" receiving one significant strength for a safety and health plan that fully addresses safety requirements.

Morgan

Morgan received an overall adjectival rating of "Fair," and the lowest Mission Suitability score.

In Subfactor A: Understanding the Requirements, Morgan was rated "Fair" receiving four strengths, two significant weaknesses, and eight weaknesses.

Morgan received the following four strengths: (1) Demonstrates a thorough, sound and complete understanding and technical approach toward satisfying the requirements of SOW Function 4E, Demonstration, Presentation, and Conference Services; (2) Demonstrates an excellent level of experience in meeting the requirements of SOW Function 3F, Software Specific Services; and 3H, GN&C Systems Engineering Services; (3) The RTO 4 response demonstrates a comprehensive understanding of the GN&C design/development process and the role of the GN&C systems engineer; and (4) The RTO 7 response demonstrates a very good understanding and approach to the activities needed to develop, implement, and test a new control mode for an existing spacecraft.

Morgan received a significant weakness for failing to demonstrate a complete, thorough, and sound technical approach to the requirements of SOW Function 2A, Multi-Disciplinary Analysis & Design Services; SOW Function 2B, Non-Flight Fabrication, Assembly and Testing Services; Function 2C, Integration, Test and Verification Services; Function 2E, Launch and Post-Launch Operations Support; or Function 2F, Mission Assurance and Systems Safety Services. Another significant weakness was received for failing to demonstrate a thorough understanding and sound technical approach to meeting the requirements of SOW Functions 3B, Mission Systems Engineering; 3C, Instrument Systems Engineering; 3F, Software Specific Services; 3H1, GN&C Systems Engineering Specific Tasks; 3H2, Flight Dynamics Engineering Specific Tasks; 3H4, Propulsion Engineering Specific Tasks; or 3H5, Propulsion System Technician Tasks.

Morgan received the following eight weaknesses: (1) Does not demonstrate an adequate understanding or a thorough technical approach for meeting the requirements of SOW Function 1A, Candidate Study Services; Function 1B, Preliminary Analysis Study Services; or Function 1C, Systems Definition Study Services; (2) Does not demonstrate a complete, thorough, or sound technical approach to meeting the requirements of SOW Function 4A, Instrument Systems Technology Services; Function 4C1, Computer Support Specific Tasks; 4D, Software Systems Technology Services; or 4F, Systems Technology Services; (3) Does not demonstrate adequate relevant experience in response to SOW Function 1A, Candidate Study Services; or 3B, Mission Systems Engineering; (4) The RTO 6 response does not demonstrate a complete, thorough, or sound technical approach to the development of test plans and procedures and proposes an inappropriate staffing plan. Four additional weaknesses were noted in RTO's 1, 2, 4, and 5, for inadequate staffing plans resulting in overall minimal staffing adjustments.

In Subfactor B: Capabilities, Morgan was rated "Good" receiving two strengths, one significant weakness, and one weakness.

Morgan received a strength for a comprehensive workforce staffing plan which provides incentives for promoting employee retention. Another strength was received for a competitive compensation plan to attract and retain high-quality staff.

Morgan received a significant weakness in the area of critical positions for failing to adequately describe specific responsibilities for certain positions which does not reflect an understanding of the specific areas of expertise required for METS.

Morgan received a weakness in position descriptions for one of the proposed other positions which does not reflect an understanding of the specific areas of expertise required for METS.

In Subfactor C: Management Plan, Morgan was rated "Good" receiving one strength, and one weakness.

Morgan received a strength for a thorough, sound and complete approach to Phase-In.

Morgan received a weakness for proposing an unclear approach toward Subcontractor Management, in particular managing subcontractor problems, under-performance, and deficiencies.

In Subfactor D: Safety and Health Plan, Morgan was rated "Good" receiving no findings.

PAST PERFORMANCE EVALUATION FACTOR

In evaluating Past Performance, SGT was rated "Excellent." The SGT Team possesses relevant past performance experience related to the METS requirements and received mostly very good and excellent ratings. ASRC was rated "Excellent." The ASRC Team possesses relevant past performance experience related to the METS requirements and received mostly very good and excellent ratings. CNSI was rated "Good." The CNSI Team possesses minimally relevant past performance experience related to the METS requirements. CNSI does not have any identified space flight applications experience. The CNSI Team received very good and excellent ratings with some good ratings. Morgan was rated "Very Good." The Morgan Team possesses moderate relevant past performance experience related to the METS requirements and received mostly very good and excellent ratings.

COST/PRICE EVALUATION FACTOR

The order of the Offeror's total proposed cost for all RTOs from lowest to highest is as follows: ASRC, SGT, CNSI, and Morgan. Based on the proposed total average hourly rate the order from lowest to highest is as follows: ASRC, CNSI, SGT, and Morgan. The substance of the SEB's probable cost assessment for each proposal follows: ASRC had the lowest probable cost and lowest probable average hourly rate. The SEB made slight upward adjustments for minor computational errors in labor rates and indirect

rates. Based on the technical evaluation, the SEB made direct labor hour adjustments resulting in a substantial increase in costs and a maximum cost realism Mission Suitability point adjustment. The SEB had a low level of confidence in the probable cost due to a lack of proposed ceilings on two indirect rates, along with concerns attributable to the adequacy of ASRC's accounting system.

SGT had the second lowest probable cost and third lowest probable average hourly rate. The SEB made slight upward adjustments for minor computational errors in labor hours and rates. Based on the technical evaluation, the SEB made direct labor hour adjustments resulting in a slight increase in costs. The SEB had a high level of confidence in the probable cost.

CNSI had the third lowest probable cost and second lowest probable average hourly rate. The SEB made significant upward adjustments for computational errors in labor hours and rates, and to correct calculation errors. Based on the technical evaluation, the SEB made downward direct labor hour adjustments resulting in a moderate decrease in costs and a cost realism Mission Suitability point adjustment. The SEB had a low level of confidence in the probable cost due to the magnitude of error corrections, failure to submit required subcontractor cost data for one of the RTOs, and inconsistencies in the application of indirect rate ceilings.

Morgan had the highest probable cost and highest probable average hourly rate. The SEB made slight downward adjustments for minor computational errors in labor rates. Based on the technical evaluation, the SEB made minor downward direct labor hour adjustments resulting in a slight decrease in costs. The SEB had a high level of confidence in the probable cost.

There was no difference in Phase-In price between SGT, ASRC, and CNSI. Morgan had the highest Phase-in price.

DECISION

During the presentation, I carefully considered the detailed findings the SEB presented. I noted that the SEB report accompanying the findings further amplified each finding in extensive detail. I solicited, received, and considered the views of key senior GSFC personnel and SEB members who were in attendance at the presentation. These key senior personnel have responsibility related to this acquisition and understood the application of the evaluation factors set forth in the RFP.

In determining which proposal offered the best value to NASA, I referred to the relative order of importance of the three evaluation factors as stated in the RFP: "The Cost Factor is significantly less important than the combined importance of the Mission Suitability Factor and the Past Performance Factor. As individual factors, the Mission Suitability Factor is the most important and the Past Performance Factor is more important than the Cost Factor."

My selection was based on a comparative assessment of each proposal against each of the three factors.

Regarding the Mission Suitability Factor, I accepted the findings of the SEB as reflected in the report and noted that SGT's overall "Very Good" rating was significantly higher than ASRC (Good), CNSI (Good), and Morgan (Fair). SGT's proposal was strong in many areas including demonstrating an understanding of various SOW requirements and the hypothetical problems associated with the RTOs. Also, SGT was significantly strong in critical positions, total compensation plan, teaming arrangements, and award fee sharing. I noted that ASRC was also strong in many areas of the SOW, teaming arrangements, and award fee sharing. However, the accumulation of ASRC's inadequate staffing weaknesses in all seven RTOs resulted in an overall substantial staffing adjustment, which demonstrates a potential lack of understanding and poses a risk to successful contract performance. I determined that CNSI's and Morgan's much lower ratings and significant weaknesses excluded them from consideration for selection on initial offers. Finally, I noted that SGT received "Excellent" ratings in two subfactors (Capabilities and Management Plan) and noted a discriminator in the Capabilities subfactor as no other offeror was rated "Excellent."

Regarding the Past Performance Factor, I noted a discriminator between the "Excellent" ratings for SGT and ASRC, and the "Very Good" and "Good" ratings for Morgan and CNSI, respectively.

Regarding the Cost/Price Factor, I examined the findings the SEB made in determining probable cost, noted the relative order of standing for each of the offerors, and noted the Mission Suitability point adjustments made to ASRC and CNSI. ASRC's total probable CPAF is significantly lower than SGT's. However, I reviewed ASRC's and SGT's probable average hourly rate which results in a moderate reduction in the difference between the offerors. In addition, ASRC's lack of ceilings on two indirect rates increases the cost risk liability to the Government and therefore lowers the Government's level of confidence of ASRC's probable costs. Further, I considered the RFP Provision M.5 language, which states that the Government will evaluate the proposed rates contained in the Rate Matrix (Attachment B) for cost realism and reasonableness. This review finds relatively minor differences between ASRC's and SGT's overall indirect rates.

Regarding CNSI, I concluded that their second lowest probable average hourly rate did not offset the significant differences in Mission Suitability between CNSI and SGT.

Based on the foregoing, I conclude that SGT's proposal offers the best value to the Government in consideration of the three evaluation factors. SGT's significantly higher Mission Suitability rating, the most important selection factor, more than offsets ASRC's lower probable cost, the least important selection factor. Therefore, I select SGT for award of the Multi-Disciplinary Engineering and Technology Services (METS) contract.

**SELECTION STATEMENT
SIGNATURE PAGE
FOR
THE MULTI-DISCIPLINARY ENGINEERING AND TECHNOLOGY
SERVICES PROCUREMENT**



Michael Ryschkewitsch
Director of Applied Engineering
And Technology Directorate

1/4/05

Date

NN605CA 99C

Multi-Disciplinary Engineering
& Technology Service (METS)

Task Orders

(2 - 146)

(2114105 - 1124106)

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Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 2/0 (Technical)

Title: ST5 Flight Software Support

Task Period: 02/05/2005 - 07/31/2006

Flight: Non-Flight

Process Stage: Fully_Awarded

Process Date: 02/14/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost: \$261,516.00

Current Mod Max. Fee: \$22,882.00

Current Mod Cost(Mod Est Cost + Mod Max Fee): \$284,398.00

Total Estimated Cost: \$261,516.00

Total Maximum Fee: \$22,882.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$284,398.00

Assistant Technical Representative (ATR) DAVID K LEUCHT	<input type="checkbox"/> Signature	Date 12/20/2004 02:52 PM	Org Code 582.0	Phone (301)286-4460
Branch Head ELAINE M SHELL	<input checked="" type="checkbox"/> Signature ELAINE M SHELL	Date 01/05/2005 09:53 AM	Org Code 582.0	Phone (301)286-2628
Contract Resource Analyst PEIFEN SHAW I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 01/05/2005 01:27 PM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 02/09/2005 12:17 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY  ERIC J NEWMAN	<input type="checkbox"/> Signature	Date 02/10/2005 04:12 PM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/14/2005 08:02 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$300,000.00		Work Performed On-Site: All		
Funding Information: 51-629-50-30(SAEX22004D)		Government Furnished Property/Facilities: No		
Task Background Attached: Yes				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: DAVID K LEUCHT , Code 580.0, Bldg 23 , Room W309				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delet! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51-629-50-30

Fiscal Year/Fund
SAEX22004D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Statement of Work

Item Description	
1 Spacecraft Integration and Test Support Services	
Performance Requirements	Delivery Schedule:
The contractor shall provide Flight Software Test Engineer to support Integration and Test of ST5 spacecraft components, conduct component test, analyze test results, and provide written reports of test activities and test results as requested. Period of Performance: effective date through 02/28/06	13 Month(s)
The contractor's Flight Software Test Engineer shall support ST5 Project and Spacecraft I&T subsystem reviews as needed. Period of Performance: effective date through 02/28/06	13 Month(s)
The contractor's Flight Software Test Engineer shall support regression test of the ST5 Flight Software as needed. Period of Performance: effective date through 02/28/06	13 Month(s)
Item Description	
2 ST5 Flight Software Configuration Management Services	
Performance Requirements	Delivery Schedule:
The contractor shall provide Software Configuration Management services, as needed, to configure and control builds of the ST5 Flight Software and ST5 Flight Software Documentation. Period of Performance: effective date through 07/31/06	18 Month(s)
The contractor shall provide Software Configuration Management services, as needed, to customize and maintain the ST5 Flight Software Problem Reporting System, provided by Rational's ClearQuest Tool. Period of Performance: effective date through 07/31/06	18 Month(s)
The contractor shall provide Software Configuration Management services, as needed, to customize and maintain the ST5 Flight Software Configuration Management System provided by Rational's ClearCase Tool. Period of Performance: effective date through 07/31/06	18 Month(s)
Item Description	
3 Performance Specifications	
Performance Requirements	Delivery Schedule:
Standards Compliance: Requirement, design, coding and test standards shall be in accordance with standard practices of NASA's GSFC, Code 582 and the ST5 Mission Assurance Requirements. Period of Performance: effective date through 07/31/06	18 Month(s)

Task Order Documents



2_Task_Background_2015-0.pdf

Comment: None

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Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 3/0
(Technical)

Title: SDO FSW Development

Task Period: 02/05/2005 - 02/28/2006

Flight: Non-Flight

Process Stage:
Fully_Awarded

Process Date:
02/14/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost:
\$733,967.00

Current Mod Max. Fee:
\$64,222.00

Current Mod Cost(Mod Est Cost + Mod Max Fee):
\$798,189.00

Total Estimated Cost:
\$733,967.00

Total Maximum Fee:
\$64,222.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$798,189.00

Assistant Technical Representative (ATR) MANUEL D MALDONADO	<input type="checkbox"/> Signature	Date 12/20/2004 04:01 PM	Org Code 582.0	Phone (301)286-7817
Branch Head THOMAS D MILLER	<input checked="" type="checkbox"/> Signature THOMAS D MILLER	Date 01/10/2005 11:41 AM	Org Code 464.0	Phone (301)286-2236
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 01/10/2005 03:49 PM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 02/09/2005 09:47 AM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature  ERIC J NEWMAN	Date 02/10/2005 04:25 PM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/14/2005 08:03 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$750,000.00		Work Performed On-Site: All		
Funding Information: 51-884-01-07(ESAX22005D)		Government Furnished Property/Facilities: No		
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: MARK A WALTERS , Code 580.0, Bldg 23 , Room W307				

Proposal Instructions

Item Document Type Document Description

- 1 Cost Estimate This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
- 2 Implementation Plan This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal.
- 3 Miscellaneous Do Not Delet! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51-884-01-07

Fiscal Year/Fund
ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Statement of Work

Item Description	
1 SDO FSW Development	
Performance Requirements	Delivery Schedule:
Provide C&DH Build 2 and Build 3 Software development services for C&DH FSW. This includes Requirements analysis, design, code, integration testing, testing, database development, documentation.	12 Month(s)
SDO Diagnostics Software development, integration and test for PSE, S-Comm, ACE and GCE. This includes troubleshooting problems, fixing and re-integrating if needed. RUn the tests for 1xBB, 2xETUs and 2xFlight Units. Documenting Diangstics test procedure and test results.	12 Month(s)
Develop SDO FSW for ACS subsystem. for Build 2 and 3 ACS FSW This includes, requirements analysis, coding, unit testing, integration testing, documentation.	12 Month(s)
Comfiguration Management services for SDO FSW Team. Setup CM system using MKS CM system based on Code 582 DCR Template.	6 Month(s)

Return to List Contract View/Process

Funding Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 4/0 (Technical)

Title: FSW SpaceWire Prototype

Task Period: 02/07/2005 - 09/30/2005

Flight: Non-Flight

Process Stage: Fully_Awarded

Process Date: 02/14/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost: \$101,905.00

Current Mod Max. Fee: \$8,917.00

Current Mod Cost(Mod Est Cost + Mod Max Fee): \$110,822.00

Total Estimated Cost: \$101,905.00

Total Maximum Fee: \$8,917.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$110,822.00

Assistant Technical Representative (ATR) JANE K MARQUART	<input type="checkbox"/>	Date 12/22/2004 10:13 AM	Org Code 582.0	Phone (301)286-7851
Branch Head ELAINE M SHELL ELAINE M SHELL	<input checked="" type="checkbox"/> Signature	Date 01/05/2005 09:53 AM	Org Code 582.0	Phone (301)286-2628
Contract Resource Analyst PEIFEN SHAW PEIFEN SHAW I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.	<input checked="" type="checkbox"/> Signature	Date 01/05/2005 01:29 PM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature	Date 02/09/2005 09:52 AM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY  ERIC J NEWMAN	<input type="checkbox"/>	Date 02/10/2005 04:46 PM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature	Date 02/14/2005 08:03 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$120,000.00		Work Performed On-Site: All		
Funding Information: 51-470-90-20 (ESAX22005D)		Government Furnished Property/Facilities: Yes		
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: JANE K MARQUART , Code 582.0, Bldg 3 , Room 216				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delet! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51-470-90-20

Fiscal Year/Fund
ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
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Total Funding \$0.00 \$0.00 \$0.00

Property

Item	Property Type	Property Description
1	Facility	Code 582 Branch Tech Lab

Statement of Work

Item Description	
1 SpaceWire SOW	
Performance Requirements	Delivery Schedule:
See attached SOW	9 Month(s)
Statement of Work Documents	Comment
 TOMS_SOW_SpaceWire.doc	None

[Return to List](#) [Contract](#) [View/Process](#)
 [Funding](#) [Create Task Mod](#)

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 6/0 (Technical)

Title: SSSC PROGRAM SOFTWARE SERVICES (TSW)

Task Period: 01/22/2005 - 01/22/2006

Flight: Non-Flight

Process Stage: Fully_Awarded

Process Date: 03/04/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost: \$186,000.00

Current Mod Max. Fee: \$16,000.00

Current Mod Cost(Mod Est Cost + Mod Max Fee): \$202,000.00

Total Estimated Cost: \$186,000.00

Total Maximum Fee: \$16,000.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$202,000.00

Assistant Technical Representative (ATR) ORVILLE C ST. CYR	<input type="checkbox"/> Signature	Date 02/01/2005 04:41 PM	Org Code 612.1	Phone (301)286-2575
Branch Head DOUGLAS M RABIN	<input checked="" type="checkbox"/> Signature DOUGLAS M RABIN	Date 02/17/2005 01:34 PM	Org Code 612.1	Phone (301)286-5682
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 02/17/2005 01:48 PM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 03/03/2005 11:49 AM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 03/04/2005 06:58 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 03/04/2005 07:01 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$186,000.00	Work Performed On-Site: All			
Funding Information: 51-784-40-62(SAEX22004D)	Government Furnished Property/Facilities: Yes			
Task Background Attached: Yes				
Contractor will develop specification or statement of work under this task for a future procurement: Yes				
Deliver To: ORVILLE C ST. CYR , Code 612.1, Bldg , Room				

Document

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51-784-40-62

Fiscal Year/Fund
SAEX22004D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Property

Item	Property Type	Property Description
1	Property	SSSC IT Lab (Bldg21-c121)

Statement of Work

Item Description	
1 Engineering services and scientific research support	
Performance Requirements	Delivery Schedule:
Contractor will provide engineering and technical services to SSSC and related programs to include the following: Engineering services to perform software engineering and technical management services to organize and present technical and programmatic information concerning SSC plans and activities. These include coordination, development, editing, and production of technical presentations, reports, and proposals; the creation, management, maintenance of repositories, including public science web sites for technical information, results and studies.	12 Month(s)

Task Order Documents



6_Task_Background_2028-0.doc

Comment: None

Get Original or Mod

Print Screen

Close Window

To view the original Task Order click "Get Original or Mod" button while "0" appears in the drop down box. To view any of the Task Modifications, click "Get Original or Mod" with the desired mod number selected in the drop down box.

View SOW History

Clicking this "View SOW History" button will display a listing of all Statement of Work Items with all of the associated Performance Specifications, Documents and Journal Entries from the original task as well as any task modifications that exist in the system.

Task Num/Mod Num: 7/0 (Technical) **Title:** Internet, Technical & Administrative Services for NASA/GSFC Earth Sciences Directorate, Code 900 **Task Period:** 02/05/2005 - 02/04/2006
Flight: Non-Flight **Process Stage:** Fully_Awarded **Status Date:** 03/10/2005 **Awarded To:** SGT Inc.
Current Mod. Est. Cost: \$140,000.00 **Current Mod Max. Fee:** \$12,250.00 **Current Mod Cost (Mod Est Cost + Mod Max Fee):** \$152,250.00
Total Est. Cost: \$140,000.00 **Total Maximum Fee:** \$12,250.00 **Task Order Total Cost (Total Est Cost + Total Max Fee):** \$152,250.00

Assistant Technical Representative (ATR) DOROTHY J ZUKOR  Signature DOROTHY J ZUKOR	Date 01/13/2005 04:48 PM	Org Code 610.0	Phone (301)614-5635
Branch Head CYNTHIA G KELLY  Signature CYNTHIA G KELLY	Date 03/09/2005 04:28 PM	Org Code 603.0	Phone (301)614-5625
Contract Resource Analyst MARGARET S PAVLINIC  Signature PEIFEN SHAW I hereby verify that the government cost estimate accompanied with this PR complies with 3PG 5100.5.	Date 01/18/2005 01:43 PM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY  Signature WALTER T FLOURNOY	Date 03/09/2005 06:20 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) MELISSA L MOORE  Signature GERALDINE T HUMPHREY	Date 03/10/2005 06:35 AM	Org Code 210.M	Phone (301)286-4240
Contracting Officer (CO) RAY JAMES SISNEROS  Signature GERALDINE T HUMPHREY	Date 03/10/2005 06:38 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$140,000.00 Cost Estimate File Attached: No		Work Performed On-Site: All	
Funding Information: 51-613-24-97(SAEX22004D)		Government Furnished Property/Facilities: No	
Task Background Attached: No			
Contractor will develop specification or statement of work under this task for a future procurement: No			
Deliver To: DOROTHY J ZUKOR , Code 610.0, Bldg , Room			

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element	Fiscal Year/Fund
51-613-24-97	SAEX22004D

Statement of Work

Item	Description				
1	This is a follow-on to Task 1160 under previous contract NAS5-99124. Development, management, execution and maintenance of web-based projects relative to the Earth Sciences Directorate R&D and programmatic activities.				
<table border="1"> <thead> <tr> <th>Performance Specifications</th> <th>Delivery Schedule:</th> </tr> </thead> <tbody> <tr> <td>Comparative bibliometric analyses on a 9-month basis.</td> <td>9 Month(s)</td> </tr> </tbody> </table>		Performance Specifications	Delivery Schedule:	Comparative bibliometric analyses on a 9-month basis.	9 Month(s)
Performance Specifications	Delivery Schedule:				
Comparative bibliometric analyses on a 9-month basis.	9 Month(s)				
<table border="1"> <thead> <tr> <th>Statement of Work Documents</th> <th>Comment</th> </tr> </thead> <tbody> <tr> <td>  METS Task 7 SOW.doc </td> <td>SOW for New Task 7 (Follow-On to Task 1160 under previous contract NAS5-99124)</td> </tr> </tbody> </table>		Statement of Work Documents	Comment	 METS Task 7 SOW.doc	SOW for New Task 7 (Follow-On to Task 1160 under previous contract NAS5-99124)
Statement of Work Documents	Comment				
 METS Task 7 SOW.doc	SOW for New Task 7 (Follow-On to Task 1160 under previous contract NAS5-99124)				

FY 2005 Statement of Work

for

Contract/Task No.: NAS 3913-N60,
Contractor: QSS Group Inc., Tom Hood

Synopsis:

Programmatic, research and technical support to Applied Sciences Program (NASA HQ, Office of Science, Earth-Sun Systems Directorate); Design, development, management, execution, and maintenance of web-based projects related to GSFC Earth Sciences R&D, programs and policies; and Comparative publication and citation reporting of Earth-Sun Exploration Division and GSFC Earth Science research to world-class research organizations, universities and institutions.

Applied Sciences Program (HQ, Office of Science, Earth-Sun Systems Directorate)

1. Contractor will be responsible for the design, development, management, execution, and maintenance of web-based software (i.e., Applications Implementation Working Group web site) for the successful implementation of Program objectives including deliverables, documentation, schedules, metrics and programmatic data as directed by the Agency's strategic plan for the Applied Sciences Program.
2. Contractor will provide technical and management support to the Applications Director/Coordinator at GSFC and participate in critical program meetings with the scientific community at GSFC, other NASA centers and Federal agencies (such as NOAA, NSF, DHS, etc.) as directed;
3. Contractor, in coordination with the Ecological Forecasting program manager and the Protected Area Management (PAM) project manager, will assist Natureserve and NASA Ames Research Center in the development of requirements and deliverable reports for the Vista and TOPS (Terrestrial Observation and Prediction System) decision support tools utilizing NASA data products. This will include: 1) Development of the project's evaluation report; 2) Identification of specific data products which NASA may be able to provide to meet Natureserve and ARC requirements; and 3) Recommendations and support for developing other deliverables such as the Verification and Validation (V&V) and Benchmarking reports. Contractor will assist Natureserve and ARC in applying systems engineering methodology for the review of NASA data products that can support Vista and TOPS DSS requirements. Contractor will support the development of an evaluation report by the NASA/NGO group, which is exploring the development of scaleable indicators for use by the international community seeking to understand rates of biodiversity loss by the year 2010. Lastly, contractor will review and provide feedback on

submitted drafts of assigned deliverables by the PAM project manager such as the evaluation, V&V and benchmarking reports.

4. Contractor will be responsible for setting up inter-agency and public workshops for the Program;
5. Contractor will evaluate Program deliverables submitted by members of the Applications Implementation Working Group (AIWG) for completeness and adherence to the Program's adopted systems engineering methodology (which includes evaluation, design & development, validation and verification, and benchmark reports.)
6. Contractor will collaborate with the Stennis Space Center's (SSC) Earth Sciences Applications Directorate and the SSC-resident applications manager at GSFC to ensure the Program's systems engineering methodology is properly applied to the applications projects.
7. Contractor will provide support for the integration of Applied Science solution concepts into future proposals submitted to NASA HQ.

Earth-Sun Exploration Division (formerly the Earth Sciences Directorate):

1. Contractor, as lead webmaster for the Earth-Sun Exploration Division will guide and assist Division webmasters in properly promoting Division web content into the NASA (Agency-level) Portal as specified by the NASA Public Web Site Integration Implementation Plan. Contractor will ensure a clear understanding among all Division webmasters and related parties of their roles and responsibilities in the Portal content migration efforts for their web sites.
2. Contractor will foster superior science communications and address Division-wide policies and performance metrics for popular science sites, educational sites, peer science sites, etc. Contractor will use "best practice" case studies to inform Division webmasters, scientists, engineers, graphic artists, science writers, and management on the most effective approaches to web-based science communication.
3. Contractor will actively promote Earth Science research and applications to appropriate audiences (e.g., research community, educators at appropriate grade levels, science attentive public) via the Division's portal sites and content management system, fact sheets publicizing Earth science sites for non-science audience, and by other means.
4. Contractor will analyze and present metrics of Division web sites indicating both strengths and areas requiring improvement.
5. Contractor will promote thematic integration of all the Division's popular science and educational product web sites.

6. Contractor will provide American with Disabilities Act (ADA) guidelines for web sites and HTML best practices for implementing these guidelines to all Division webmasters.
7. Contractor will optimize the Division's portal sites (popular science, peer science, education, and applications) to draw public attention to the Division's web sites and to funnel them into "hot" portions of these sites. Contractor will use techniques such as research news, information and programming for the science attentive audience, etc.
8. Contractor will update and maintain all current Division-specific web and portal sites which include the Division office web site, Earth Sciences Portal, and the Earth Science Educator portal and other related and legacy web sites.

Administrative Support (for Earth Sciences Directorate):

1. Contractor will provide comparative bibliometric analyses of Earth Science research at NASA Goddard, Earth-Sun Exploration Division, other NASA centers, universities and world-class research laboratories as a management tool for senior management. These analyses will include citation and publication statistics for these organizations as measure of comparative research performance. These analyses will be used as part of the Division's overall strategic and performance plans. To perform these analyses, Contractor will use the most comprehensive and complete bibliometric data that is commercially available. Contractor will use database software to construct queries that provide a variety of bibliometric snapshots of Division research performance over specified periods and compare such results with the bibliometric data of other organizations involved in Earth Science research.

Return to List Contract View/Process

Funding Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 8/0 (Technical) **Title:** GOES-R Engineering Services - Ground Data Processing and Flight Software

Task Period: 02/07/2005 - 12/17/2008

Flight: Non-Flight

Process Stage: Fully_Awarded

Process Date: 02/18/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost: \$610,492.00

Current Mod Max. Fee: \$49,870.00

Current Mod Cost(Mod Est Cost + Mod Max Fee): \$660,362.00

Total Estimated Cost: \$610,492.00

Total Maximum Fee: \$49,870.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$660,362.00

Assistant Technical Representative (ATR) ALEXANDER KRIMCHANSKY	<input type="checkbox"/> Signature	Date 12/22/2004 10:15 AM	Org Code 599.0	Phone (301)614-5403
Branch Head SANDRA A CAUFFMAN	<input checked="" type="checkbox"/> Signature SANDRA A CAUFFMAN	Date 01/10/2005 10:56 AM	Org Code 417.0	Phone (301)286-7607
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 01/10/2005 03:54 PM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 02/14/2005 03:54 PM	Org Code 599.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	 ERIC J NEWMAN	Date 02/15/2005 01:53 PM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/18/2005 06:58 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$800,000.00		Work Performed On-Site: All		
Funding Information: 51r-616-52-4283-01(SAEX22004R)		Government Furnished Property/Facilities: No		
Task Background Attached: Yes				
Contractor will develop specification or statement of work under this task for a future procurement: Yes				
Deliver To: ALEXANDER KRIMCHANSKY , Code 417.0, Bldg 6 , Room S234				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delet! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51r-616-52-4283-01

Fiscal Year/Fund
SAEX22004R

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
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Total Funding	\$0.00	\$0.00	\$0.00
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Statement of Work

Item Description	
1 Task Background	
Performance Requirements	Delivery Schedule:
The contractor shall provide Ground Data Processing and Flight Software Systems Engineering services to the GOES-R Project. The contractor shall develop technical specifications and perform independent analysis, as required. The contractor will interface extensively with the customer, NOAA, to develop their operational concept requirements and to merge these with the spacecraft and instrument requirements. Monthly technical reports.	1 Month(s)

Task Order Documents



8_Task_Background_2030-0.doc

Comment: None

[Return to List](#) [Contract](#) [View/Process](#)
 Funding Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 12/0 (Technical)

Title: ESTO Systems Engineering and Systems Integration

Task Period: 02/05/2005 - 02/04/2006

Flight: Non-Flight

Process Stage: Fully_Awarded

Process Date: 02/14/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost: \$242,207.00

Current Mod Max. Fee: \$20,432.00

Current Mod Cost(Mod Est Cost + Mod Max Fee): \$262,639.00

Total Estimated Cost: \$242,207.00

Total Maximum Fee: \$20,432.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$262,639.00

Assistant Technical Representative (ATR) PATRICIA M FOGLEMAN	<input type="checkbox"/> Signature	Date 12/28/2004 03:42 PM	Org Code 407.0	Phone (301)286-6798
Branch Head GEORGE J KOMAR	<input checked="" type="checkbox"/> Signature GEORGE J KOMAR	Date 01/04/2005 01:43 PM	Org Code 407.0	Phone (301)286-0007
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 01/04/2005 02:54 PM	Org Code 501.Q	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 02/09/2005 10:02 AM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature ERIC J NEWMAN	Date 02/10/2005 05:11 PM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/14/2005 08:03 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$252,000.00	Work Performed On-Site: All			
Funding Information: 51-258-70-70(ESAX22005D)	Government Furnished Property/Facilities: Yes			
Task Background Attached: Yes				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: PATRICIA M FOGLEMAN , Code 407.0, Bldg 22 , Room 268				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delet! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51-258-70-70

Fiscal Year/Fund
ESAX22005D

Allotment	Estimated	Award	Total	PR	Updated	Last
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Date	Cost	Fee	Cost	Number	By	Update
Total Funding	\$0.00	\$0.00	\$0.00			

Property

Item	Property Type	Property Description
1	Property	1664824 Sony Digital Camera
2	Property	1953496 HP Printer
3	Property	2114249 Apple Microcomputer
4	Property	2165315 Apple Laptop
5	Property	3038383 apple powerbook
6	Property	2114321 apple desktop
7	Property	1880185 dell desktop
8	Property	2107863 ibm laptop

Statement of Work

Item Description	
1 Systems Integration	
Performance Requirements	Delivery Schedule:
The contractor shall provide technical services to the Earth Sun system Technology Office (ESTO) in the area of overall program planning and implementation in support of NASA's Science Mission Directorate (SMD). Planning tasks include the preparation of Earth Sun System (ESS)-wide program, technology investment, and technology infusion plans related to space, airborne and in situ instruments; space and airborne platforms; and advanced information systems. Work products are typically ESTO documents prepared in accordance with NASA Procedures and Guidelines (NPG 7120.5A). Assessing technology needs and supporting the preparation of related implementation plans for the development and maturation of technologies to be used in future Earth Sun System flight and ground programs and airborne platforms, and advanced information system technologies. Reviewing progress of technology development tasks sponsored by the ESTO by assessing the maturity level, potential development risks, and potential benefits of a wide-range of space, airborne and in situ instruments, space, and advanced information systems technologies. Coordinating ESTO processes for technical evaluations for proposals submitted in response to RFIs and NRAs. Preparing documentation in support of ISO-9001 and analyzing and updating ESTO databases in regard to accuracy and completeness. Deliverable Due Date 1. Technical Progress Reports Monthly, 15th of the month 2. Technical Reports Ten business days following Tech Review 3. Review and Update Master Schedule Monthly 4. Update the ESTO Database (TEDS) Monthly	12 Month(s)
The contractor shall provide technical services to ESTO in the area of network and server architecture and administration, operation and maintenance. Tasks include, but are not limited to ensuring the integrity and security of the ESTO network, server operations, and server backup strategy. Providing system requirements to and maintaining coordination with the Information Technology (IT) desktop support contractor. Work products include problem reports, if they	12 Month(s)

occur, IT system announcements and IT Security documentation as required by NASA and GSFC. Deliverable Due Date IT Reports Weekly	
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Task Order Documents



12_Task_Background_2038-0.doc

Comment: Task Order Background

Return to List
Contract
View/Process
Funding
Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 13/0 (Technical)

Title: FSW Branch Systems Engineering

Task Period: 02/05/2005 - 01/31/2006

Flight: Non-Flight

Process Stage: Fully_Awarded

Process Date: 02/14/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost: \$294,500.00

Current Mod Max. Fee: \$25,768.00

Current Mod Cost (Mod Est Cost + Mod Max Fee): \$320,268.00

Total Estimated Cost: \$294,500.00

Total Maximum Fee: \$25,768.00

Task Order Total Cost (Total Est Cost + Total Max Fee): \$320,268.00

Assistant Technical Representative (ATR) ELAINE M SHELL	<input type="checkbox"/> Signature	Date 12/27/2004 10:01 AM	Org Code 582.0	Phone (301)286-2628
Branch Head ELAINE M SHELL	<input checked="" type="checkbox"/> Signature ELAINE M SHELL	Date 01/05/2005 09:54 AM	Org Code 582.0	Phone (301)286-2628
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 01/05/2005 01:43 PM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 02/09/2005 10:45 AM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	 ERIC J NEWMAN	Date 02/10/2005 05:24 PM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/14/2005 08:03 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$350,000.00		Work Performed On-Site: All		
Funding Information: 51-470-90-20 (ESAX22005D)		Government Furnished Property/Facilities: No		
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: ELAINE M SHELL , Code 582.0, Bldg 3 , Room 206				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delet! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51-470-90-20

Fiscal Year/Fund
ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
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Total Funding	\$0.00	\$0.00	\$0.00
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Statement of Work

Item Description	
1 SOW	
Performance Requirements	Delivery Schedule:
Technical Progress Report monthly (15th of the month)	1 Month(s)
Code 582 Product Plan Update 05/15/05	4 Month(s)
Code 582 Product Plan Update 09/15/05	8 Month(s)
Statement of Work Documents	Comment
 Task1203Follow-on METS SOW 20041227.doc	None

Return to List
Contract
View/Process

Funding
Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 14/0
(Technical)

Title: TDRS C&DH and System Engineering

Task Period: 02/05/2005 - 05/05/2006

Flight: Non-Flight

Process Stage:
Fully_Awarded

Process Date:
02/14/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost:
\$179,855.00

Current Mod Max. Fee:
\$15,738.00

Current Mod Cost(Mod Est Cost + Mod Max Fee):
\$195,593.00

Total Estimated Cost:
\$179,855.00

Total Maximum Fee:
\$15,738.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$195,593.00

Assistant Technical Representative (ATR) TERRENCE M SMITH	<input type="checkbox"/> Signature	Date 12/23/2004 12:21 PM	Org Code 561.0	Phone (301)286-0651
Branch Head ROBERT W STONE	<input checked="" type="checkbox"/> Signature ROBERT W STONE	Date 01/03/2005 10:38 AM	Org Code 561.0	Phone (301)286-5659
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 01/04/2005 09:22 AM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 02/09/2005 10:51 AM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature ERIC J NEWMAN	Date 02/10/2005 05:53 PM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/14/2005 08:04 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$130,000.00	Work Performed On-Site: All			
Funding Information: 51R-094-40-6428-01(SFCX22004R)	Government Furnished Property/Facilities: No			
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: TERRENCE M SMITH , Code 561.0, Bldg 23 , Room E329				

f.

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delet! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51R-094-40-6428-01

Fiscal Year/Fund
SFCX22004R

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Statement of Work

Item Description	
1 Command and Data Handling system sustaining engineering for the TDRS constellation operational satellites	
Performance Requirements	Delivery Schedule:
Provide C&DH system sustaining engineering for the TDRS operational satellites (F1-7, F8-10). Support includes performance trending, spacecraft redundancy and configuration management, anomaly resolution, reliability assessments, M&O consultation support, development contractor engineering consultations, periodic spacecraft operations reviews, SOARs and failure review boards as required. Provide systems engineering evaluations and analyses including support during the on-orbit tests and transition to on-orbit operations of the TDRS spacecrafts. This activity includes review, analysis and evaluation of end-to-end systems to determine compliance with Project requirements. This activity maintains analysis of system budgets, including command and data handling, pointing, mass, power, reliability, and other budgets as directed by the Project to assure compliance with requirements.	15 Month(s)
Statement of Work Documents	Comment
 TDRS C&DH System Engineering Task Order Document.doc	None
Item Description	
2 C&DH Pre-Formulation Phase Support	
Performance Requirements	Delivery Schedule:
Provide Command and Data Handling system engineering support to the TDRS Continuation Program pre-formulation phase activities. Support includes architectural, technology, requirements, cost and procurement plans, study reports and analyses.	15 Month(s)
Item Description	
3 Spacecraft Systems Engineering Support	
Performance Requirements	Delivery Schedule:
Provide systems engineering expertise to perform evaluations and analyses during the TDRS constellation on-orbit tests and transition to on-orbit operations of the TDRS F-10 spacecraft. These activities include review, analysis and evaluation of end-to-end systems to determine compliance with Project requirements. This activity maintains analysis of system budgets including pointing, mass, power, RF link, reliability, and other budgets as directed by the Project to assure compliance with requirements. Supports on-orbit testing, transition to on-orbit operations and anomaly resolution as directed by the Project.	15 Month(s)
Engineering support of Space Network (SN) User operations and constellation management. This activity requires the analysis and review of problems encountered in SN support of the TDRSS User Community and participation in the development and definition of new	15 Month(s)

or modified User support agreements, activities, and special tests.	
Subsystem evaluations and analyses of the spacecraft bus and payload subsystems. This activity requires the analysis and review of specifications, drawings, performance reports, test plans, data review and test reports. This activity also provides the development and support of computer tools used in the analysis of bus and payload communication performance, and of other subsystem as necessary.	15 Month(s)
System Engineering support to the pre-formulation study activities of the TDRS Continuation Program.	15 Month(s)
Item Description	
4 Reports to ATR and the TDRS Project	
Performance Requirements	Delivery Schedule:
Provide Weekly Status Reports.	1 Week(s)
Provide summary reports (as directed) on C&DH issues including on-orbit anomalies and TDRS constellation state of health assessment, and the timely generation of SOARs, with schedule of final disposition determined by the TDRS Project Office.	15 Month(s)

Return to List Contract View/Process

Funding Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 16/0
(Technical)

Title: AMS-02 Cryocooler Support

Task Period: 02/07/2005 - 09/30/2005

Flight: Flight

Process Stage:
Fully_Awarded

Process Date:
02/18/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost:
\$163,907.00

Current Mod Max. Fee:
\$14,341.00

Current Mod Cost(Mod Est Cost + Mod Max Fee):
\$178,248.00

Total Estimated Cost:
\$163,907.00

Total Maximum Fee:
\$14,341.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$178,248.00

Assistant Technical Representative (ATR) KIMBERLY A SHIREY	<input type="checkbox"/> Signature	Date 12/23/2004 01:54 PM	Org Code 552.0	Phone (301)286-5934
Branch Head SUSAN R BREON	<input checked="" type="checkbox"/> Signature SUSAN R BREON	Date 01/03/2005 11:00 AM	Org Code 552.0	Phone (301)286-5405
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 01/03/2005 09:21 AM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Flight Assurance Representative RONALD E KOLECKI	<input checked="" type="checkbox"/> Signature RONALD E KOLECKI	Date 01/04/2005 10:56 AM	Org Code 303.0	Phone (301)286-9399
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 02/09/2005 10:57 AM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	 ERIC J NEWMAN	Date 02/15/2005 03:04 PM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/18/2005 06:59 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$160,000.00		Work Performed On-Site: All		
Funding Information: 51R34496492401(SAEX22004R)		Government Furnished Property/Facilities: Yes		
Task Background Attached: Yes				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: KIMBERLY A SHIREY , Code 552.0, Bldg 405 , Room 005D				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delet! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element

51R34496492401

Fiscal Year/Fund

SAEX22004R

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Property

Item	Property Type	Property Description
1	Facility	Cooler Test Facility, NASA GSFC Area 400

Statement of Work

Item Description	
1 Engineering Model Qualification (This task is a follow-on to MEDS task 1252)	
Performance Requirements	Delivery Schedule:
Support engineering model cryocooler/bracket assembly life testing. Enter any test data into logbook or data acquisition system. Due: 7/15/05.	5 Month(s)
Item Description	
2 Flight Model Qualification	
Performance Requirements	Delivery Schedule:
Support flight cryocooler integration with flight brackets. Enter any integration data into flight cooler logbook as procedure states. Due: 5/9/05	3 Month(s)
Support flight cryocooler bracket assembly qualification testing. Enter any test data into WOA or flight cryocooler logbook. Due: 7/15/05.	5 Month(s)
Item Description	
3 Support with GSE for flight models	
Performance Requirements	Delivery Schedule:
Assemble and test cryocooler drive shutdown electronics for GSE per direction of design engineer. Enter assembly and test data into logbook. Due: 4/1/05.	2 Month(s)
Item Description	
4 Cooler R&D	
Performance Requirements	Delivery Schedule:
Support life testing on cooler R&D programs as needed. Specifically the Lockheed Martin mini pulse tube coolers, the Ball two-stage Stirling cycle cryocooler, the Sunpower Cryotel and the Thales cryocooler. Enter any test data into logbook or data acquisition system. Due: 9/30/05.	8 Month(s)

Task Order Documents



16_QA_Requirements_2048-0.pdf

Comment: None



16_Task_Background_2048-0.pdf

Comment: None

Return to List
Contract
View/Process
Funding
Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 17/0 (Technical)

Title: JWST ISIM FSW Development & SE Support

Task Period: 02/05/2005 - 02/04/2006

Flight: Non-Flight

Process Stage: Fully_Awarded

Process Date: 02/18/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost: \$1,277,729.00

Current Mod Max. Fee: \$111,801.00

Current Mod Cost(Mod Est Cost + Mod Max Fee): \$1,389,530.00

Total Estimated Cost: \$1,277,729.00

Total Maximum Fee: \$111,801.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$1,389,530.00

Assistant Technical Representative (ATR) LESLYE A BOYCE	<input type="checkbox"/> Signature	Date 12/28/2004 12:10 PM	Org Code 582.0	Phone (301)286-0164
Branch Head ELAINE M SHELL	<input checked="" type="checkbox"/> Signature ELAINE M SHELL	Date 01/05/2005 09:54 AM	Org Code 582.0	Phone (301)286-2628
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 01/11/2005 01:29 PM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 02/11/2005 12:17 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature ERIC J NEWMAN	Date 02/17/2005 11:11 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/18/2005 06:59 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$1,600,000.00		Work Performed On-Site: All		
Funding Information: 51-782-06-50(ESAX22005D)		Government Furnished Property/Facilities: Yes		
Task Background Attached: Yes				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: LESLYE A BOYCE , Code 582.1, Bldg 23 , Room W209				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delet! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51-782-06-50

Fiscal Year/Fund
ESAX22005D

Allotment	Estimated	Award	Total	PR	Updated	Last
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Date	Cost	Fee	Cost	Number	By	Update
Total Funding	\$0.00	\$0.00	\$0.00			

Property

Item	Property Type	Property Description
1	Property	Computer System in Lab
2	Property	Simulators and SIDU Field Units

Statement of Work

Item Description		
1 SOW Doc		
Performance Requirements	Delivery Schedule:	
Requirements, design, coding and test standards shall be in accordance with the standard practices within Code 582.	12 Month(s)	
REPORTS and DOCUMENTS: Technical performance will be based on thoroughness and completeness of written reports. Acceptability is that the ATR is satisfied that the material reflects the proper level of technical expertise and meets the objectives of the activity.	30 Day(s)	
Technical Progress Reports: Acceptable performance is that the ATR is satisfied that she is being kept informed of the status of work and issues associated with completion of work. Reports include a summary of work for month, plans for next month, problems and resolution of issues reported.	30 Day(s)	
Statement of Work Documents	Comment	
 ISIM FSW Dev SE SOW 041228.rtf	SOW	
 ODC and Travel 1210 followon.doc	ODC and Travel	
 METS SOW Appl Sections.doc	Applicable SOW Sections	
 ISIM FSW Dev SE Del 041228.rtf	Deliverables List	
 Skill Mix for followon 1210.doc	Skill mix	
Journal Entry	Entered By	Entry Date
 ATR stated via telecon on 2/17/05 that the additional travel proposed by the contractor is necessary.	CSp	02/17/2005 11:14 AM

Task Order Documents



17_Task_Background_2061-0.doc

Comment: Task Background

Return to List Contract View/Process

Funding Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 18/0 (Technical)

Title: JWST ISIM SIDU and Lab Support

Task Period: 02/05/2005 - 02/04/2006

Flight: Non-Flight

Process Stage: Fully_Awarded

Process Date: 03/10/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost: \$950,000.00

Current Mod Max. Fee: \$83,100.00

Current Mod Cost(Mod Est Cost + Mod Max Fee): \$1,033,100.00

Total Estimated Cost: \$950,000.00

Total Maximum Fee: \$83,100.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$1,033,100.00

Assistant Technical Representative (ATR) LESLYE A BOYCE	<input checked="" type="checkbox"/> Signature	Date 12/28/2004 12:17 PM	Org Code 582.0	Phone (301)286-0164
Branch Head ELAINE M SHELL	<input checked="" type="checkbox"/> Signature ELAINE M SHELL	Date 03/08/2005 08:59 AM	Org Code 582.0	Phone (301)286-2628
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 01/11/2005 01:29 PM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 03/09/2005 05:35 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 03/10/2005 06:37 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 03/10/2005 06:38 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$950,000.00		Work Performed On-Site: All		
Funding Information: 51-782-06-50(ESAX22005D)		Government Furnished Property/Facilities: Yes		
Task Background Attached: Yes				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: LESLYE A BOYCE , Code 582.1, Bldg , Room				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element

51-782-06-50

Fiscal Year/Fund

ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Property

Item	Property Type	Property Description
1	Property	Computer System in Lab
2	Property	Simulators and SIDU Field Units

Statement of Work

Item Description	
1 Statement of Work	
Performance Requirements	Delivery Schedule:
Requirements, design, coding and test standards shall be in accordance with the standard practices within Code 582.	12 Month(s)
REPORTS and DOCUMENTS: Technical performance will be based on thoroughness and completeness of written reports. Acceptability is that the ATR is satisfied that the material reflects the proper level of technical expertise and meets the objectives of the activity.	30 Day(s)
Technical Progress Reports: Acceptable performance is that the ATR is satisfied that she is being kept informed of the status of work and issues associated with completion of work. Reports include a summary of work for month, plans for next month, problems and resolution of issues reported.	30 Day(s)
Statement of Work Documents	Comment
 ISIM FSW SIDU Sys Admin SOW 041228.rtf	SOW
 ISIM FSW SIDU Sys Admin Deliverable 04228.rtf	Deliverables List
 ODC and Travel 1211 followon.doc	ODC and Travel
 METS_SOW_Appl_Sections.doc	Applicable SOW Sections
 Skill Mix for followon 1211.doc	Skill mix

Task Order Documents



18_Task_Background_2062-0.doc

Comment: Task Background

Return to List
Contract
View/Process
Funding
Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 20/0
(Technical)

Title: ST-5 Ground System Development

Task Period: 02/05/2005 - 02/04/2006

Flight: Non-Flight

Process Stage:
Fully_Awarded

Process Date:
02/18/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost:
\$266,498.00

Current Mod Max. Fee:
\$23,317.00

Current Mod Cost(Mod Est Cost + Mod Max Fee):
\$289,815.00

Total Estimated Cost:
\$266,498.00

Total Maximum Fee:
\$23,317.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$289,815.00

Assistant Technical Representative (ATR) EDWIN H FUNG	<input type="checkbox"/> Signature	Date 12/28/2004 09:10 PM	Org Code 584.0	Phone (301)286-7347
Branch Head JOHN T DONOHUE	<input checked="" type="checkbox"/> Signature JOHN T DONOHUE	Date 12/30/2004 08:39 PM	Org Code 584.0	Phone (301)286-6149
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 01/04/2005 09:22 AM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 02/09/2005 11:14 AM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	 ERIC J NEWMAN	Date 02/15/2005 03:42 PM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/18/2005 06:59 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$320,000.00		Work Performed On-Site: All		
Funding Information: 51-629-50-40(ESAX22005D)		Government Furnished Property/Facilities: Yes		
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: Yes				
Deliver To: EDWIN H FUNG , Code 584.0, Bldg 23 , Room W217				

Proposal Instructions

Item Document Type Document Description

- | | | |
|---|---------------------|--|
| 1 | Cost Estimate | This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order. |
| 2 | Implementation Plan | This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal. |
| 3 | Miscellaneous | Do Not Delet! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal. |

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Property

Item	Property Type	Property Description
1	Facility	ASIST Development Lab
2	Property	Computers in the ASIST Development Lab

Statement of Work

Item Description	
1 Provide ASIST and FEDS development support for various ST-5 Labs and the ST-5 MOC	
Performance Requirements	Delivery Schedule:
All products developed under this task shall meet or exceed ST-5 Project requirements	12 Month(s)
Monthly status to include (1)summary of monthly progress; (2) plans for next month; (3) oblems/issues and (4) resolution of problems/issues.	12 Month(s)
Statement of Work Documents	Comment
 ST5-495-148BaseChng1.doc	None
Item Description	
2 Maintenance and configuration control of ASIST & FEDS S/W, hardware and operating systems.	
Performance Requirements	Delivery Schedule:
(a) Monthly status report to include (1)summary of monthly progress; (2) plans for next month; (3) problems/issues and (4) resolution of problems/issues.	12 Month(s)
Item Description	
3 Complete design and maintain an ASIST/FEDS configuration to support 3 spacecrafts on one hardware string.	
Performance Requirements	Delivery Schedule:
(a) Monthly status to include (1)summary of monthly progress; (2) plans for next month; (3) problems/issues and (4)resolution of problems/issues.	12 Month(s)
Item Description	
4 Support ground station interface development for telemetry, commanding and time correlation	

Return to List Contract View/Process

Funding Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 21/0 (Technical) **Title:** Solar Dynamics Observatory (SDO) Ground System Support

Task Period: 02/05/2005 - 02/04/2006

Flight: Non-Flight

Process Stage: Fully_Awarded

Process Date: 02/18/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost: \$293,504.00

Current Mod Max. Fee: \$25,682.00

Current Mod Cost(Mod Est Cost + Mod Max Fee): \$319,186.00

Total Estimated Cost: \$293,504.00

Total Maximum Fee: \$25,682.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$319,186.00

Assistant Technical Representative (ATR) EDWIN H FUNG	<input type="checkbox"/> Signature	Date 12/28/2004 09:37 PM	Org Code 584.0	Phone (301)286-7347
Branch Head JOHN T DONOHUE	<input checked="" type="checkbox"/> Signature JOHN T DONOHUE	Date 12/30/2004 08:55 PM	Org Code 584.0	Phone (301)286-6149
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 01/04/2005 09:24 AM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 02/11/2005 11:28 AM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	 ERIC J NEWMAN	Date 02/17/2005 11:25 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/18/2005 07:00 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$360,000.00	Work Performed On-Site: All			
Funding Information: 51-884-06-06(ESAX22005D)	Government Furnished Property/Facilities: Yes			
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: Yes				
Deliver To: EDWIN H FUNG , Code 584.0, Bldg 23 , Room W217				

Proposal Instructions

Item Document Type Document Description

- | | | |
|---|---------------------|--|
| 1 | Cost Estimate | This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order. |
| 2 | Implementation Plan | This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal. |
| 3 | Miscellaneous | Do Not Delet! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal. |

Funding

Job Order Number/WBS Element

51-884-06-06

Fiscal Year/Fund

ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Property

Item	Property Type	Property Description
1	Facility	ASIST Development Lab (Bldg 29, Rm 250)
2	Property	Computers in ASIST Development Lab

Statement of Work

Item Description	
1 To provide engineering support for the design and development of the I & T Ground System Equipment for SDO	
Performance Requirements	Delivery Schedule:
The contractor shall provide support and expertise in the requirement definitions relating to the ground system components.	12 Month(s)
The contractor shall deliver ASIST/FEDS systems to various SDO Labs.	12 Month(s)
The contractor shall support Ground System ICD development and reviews.	12 Month(s)
Item Description	
2 To provide additional capabilities for SDO-specific requirements.	
Performance Requirements	Delivery Schedule:
The contractor should provide software for interfacing with the SDO DDS (Data Distribution System).	12 Month(s)

Return to List Contract View/Process

Funding

Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 22/0 (Technical)

Title: MIDEX Ground System Support

Task Period: 02/05/2005 - 02/04/2006

Flight: Non-Flight

Process Stage: Fully_Awarded

Process Date: 02/18/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost: \$172,813.00

Current Mod Max. Fee: \$15,120.00

Current Mod Cost(Mod Est Cost + Mod Max Fee): \$187,933.00

Total Estimated Cost: \$172,813.00

Total Maximum Fee: \$15,120.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$187,933.00

Assistant Technical Representative (ATR) EDWIN H FUNG	<input type="checkbox"/> Signature	Date 12/28/2004 09:56 PM	Org Code 584.0	Phone (301)286-7347
Branch Head JOHN T DONOHUE	<input checked="" type="checkbox"/> Signature JOHN T DONOHUE	Date 01/04/2005 04:55 PM	Org Code 584.0	Phone (301)286-6149
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 01/06/2005 09:05 AM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 02/09/2005 12:10 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	 ERIC J NEWMAN	Date 02/15/2005 03:56 PM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/18/2005 07:00 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$180,000.00		Work Performed On-Site: All		
Funding Information: 51-370-28-90(ESAX22005D)		Government Furnished Property/Facilities: Yes		
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: Yes				
Deliver To: EDWIN H FUNG , Code 584.0, Bldg 23 , Room W217				

Proposal Instructions

Item Document Type Document Description

- | | | |
|---|---------------------|--|
| 1 | Cost Estimate | This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order. |
| 2 | Implementation Plan | This document should include the technical approach, period of performance, additional cost information, and any other information required to determine |

All products developed under this task shall meet or exceed MIDEX Project requirements in accordance with the Detailed Mission Requirements (DMR) documents for the MAP and IMAGE Projects. Portions of these documents have been attached for reference.	12 Month(s)
Item Description	
3 To upgrade the Front End Data Systems to address IT security issues due to old computer equipment.	
Performance Requirements	Delivery Schedule:
Technical Progress Report: Acceptable performance is that the ATR is satisfied that he is being informed of the status of work performed and of issues requiring his attention.	12 Month(s)
This is a part-time multi-year effort, with the goal of achieving 50% of the upgrade by Jan 2005.	12 Month(s)

To view the original Task Order click "Get Original or Mod" button while "0" appears in the drop down box. To view any of the Task Modifications, click "Get Original or Mod" with the desired mod number selected in the drop down box.

Clicking this "View SOW History" button will display a listing of all Statement of Work Items with all of the associated Performance Specifications, Documents and Journal Entries from the original task as well as any task modifications that exist in the system.

Task Num/Mod Num: 23/0 (Technical) **Title:** EO-1 Ground System Maintenance & MOC Operations **Task Period:** 03/10/2005 - 06/06/2005
Flight: Non-Flight **Process Stage:** Fully_Awarded **Status Date:** 03/03/2005 **Awarded To:** SGT Inc.
Current Mod. Est. Cost: \$40,000.00 **Current Mod Max. Fee:** \$3,400.00 **Current Mod Cost(Mod Est Cost + Mod Max Fee):** \$43,400.00
Total Est. Cost: \$40,000.00 **Total Maximum Fee:** \$3,400.00 **Task Order Total Cost(Total Est Cost + Total Max Fee):** \$43,400.00

Assistant Technical Representative (ATR) EDWIN H FUNG	<input type="button" value="Signature"/> Signature EDWIN H FUNG	Date 12/09/2005 11:06 AM	Org Code 584.0	Phone (301)286-7347
Branch Head JOHN T DONOHUE	<input type="button" value="Signature"/> Signature JOHN T DONOHUE	Date 12/16/2005 08:19 AM	Org Code 584.0	Phone (301)286-6149
Contract Resource Analyst MARGARET S PAVLINIC	 SUSAN R GRIEVE	Date 12/16/2005 12:08 PM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input type="button" value="Signature"/> Signature WALTER T FLOURNOY	Date 12/30/2005 12:21 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) MELISSA L MOORE	<input type="button" value="Signature"/> Signature MAYRA A NIEVES-TORRES	Date 01/19/2006 02:46 PM	Org Code 210.M	Phone (301)286-4240
Contracting Officer (CO) RAY JAMES SISNEROS	<input type="button" value="Signature"/> Signature RAY JAMES SISNEROS	Date 01/19/2006 06:57 PM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$120,000.00 Cost Estimate File Attached: No		Work Performed On-Site: All		
Funding Information: 51-258-10-17(ESAX22005D)		Government Furnished Property/Facilities: Yes		
Task Background Attached: Yes				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: EDWIN H FUNG , Code 584.0, Bldg , Room				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Implementation Plan	This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal.
3	Miscellaneous	Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element	Fiscal Year/Fund
51-258-11-17	SAEX22004D

Property

Item	Property Type	Property Description
1	Facility	EO-1 Mission Operations Center
2	Facility	ASIST Development Lab
3	Property	Computers in the EO-1 Mission Operations Center
4	Property	Computers in the ASIST Development Lab

Statement of Work

Item	Description				
1	Provide ASIST and FEDS support for the EO-1 Mission Operations Center.				
	<table border="1"> <thead> <tr> <th>Performance Specifications</th> <th>Delivery Schedule:</th> </tr> </thead> <tbody> <tr> <td>Monthly status to include (1) summary of monthly progress; (2) plans for next month; (3) problems/issues and (4) resolution of problems/issues.</td> <td>3 Month(s)</td> </tr> </tbody> </table>	Performance Specifications	Delivery Schedule:	Monthly status to include (1) summary of monthly progress; (2) plans for next month; (3) problems/issues and (4) resolution of problems/issues.	3 Month(s)
Performance Specifications	Delivery Schedule:				
Monthly status to include (1) summary of monthly progress; (2) plans for next month; (3) problems/issues and (4) resolution of problems/issues.	3 Month(s)				
Item	Description				

2 To provide sustaining engineering pertaining to the day-to-day operations of the EO-1 MOC

Performance Specifications	Delivery Schedule:
Monthly status to include (1) summary of monthly progress; (2) plans for next month; (3) problems/issues and (4) resolution of problems/issues.	3 Month(s)

Task Order Documents



23_Task_Background_2069-0.doc

Comment: None

Return to List Contract View/Process

Funding Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 24/0 (Technical)

Title: GMSEC ASIST prototype and XML based PDB

Task Period: 02/05/2005 - 02/04/2006

Flight: Non-Flight

Process Stage: Fully_Awarded

Process Date: 02/18/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost: \$57,222.00

Current Mod Max. Fee: \$50,007.00

Current Mod Cost(Mod Est Cost + Mod Max Fee): \$107,229.00

Total Estimated Cost: \$57,222.00

Total Maximum Fee: \$50,007.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$107,229.00

Assistant Technical Representative (ATR) EDWIN H FUNG	<input checked="" type="checkbox"/> Signature	Date 12/28/2004 10:21 PM	Org Code 584.0	Phone (301)286-7347
Branch Head JOHN T DONOHUE	<input checked="" type="checkbox"/> Signature JOHN T DONOHUE	Date 12/30/2004 08:59 PM	Org Code 584.0	Phone (301)286-6149
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 01/04/2005 09:24 AM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 02/09/2005 12:23 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	 ERIC J NEWMAN	Date 02/16/2005 04:28 PM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/18/2005 07:00 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$65,000.00		Work Performed On-Site: All		
Funding Information: 51-470-90-20 (ESAX22005D)		Government Furnished Property/Facilities: Yes		
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: Yes				
Deliver To: EDWIN H FUNG , Code 584.0, Bldg 23 , Room W217				

Proposal Instructions

Item Document Type Document Description

- | | | |
|---|---------------------|--|
| 1 | Cost Estimate | This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order. |
| 2 | Implementation Plan | This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal. |
| 3 | Miscellaneous | Do Not Delet! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal. |

Funding

Job Order Number/WBS Element

51-470-90-20

Fiscal Year/Fund

ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Property

Item	Property Type	Property Description
1	Facility	ASIST Development Lab (Bldg 29, Rm 250)
2	Property	Computers in ASIST Development Lab

Statement of Work

Item Description	
1 Integrating ASIST to GMSEC architecture (Prototype development)	
Performance Requirements	Delivery Schedule:
To provide on-going support for demos.	12 Month(s)
To attend and provide input to technical design meetings for the GMSEC projects.	12 Month(s)
Technical Progress Report: Acceptable performance is that the ATR is satisfied that he is being kept informed of the status of work performed and of issues requiring his attention. This Technical Progress Report is due once a month on the 15th of the month.	12 Month(s)
Item Description	
2 To assist in the development of an XML-based command and telemetry definition scheme.	
Performance Requirements	Delivery Schedule:
To provide technical and design support to the generation of the XTCE (XML Telemetry and Command Exchange) prototyping effort.	12 Month(s)
Quarterly report on progress with regard to the XML prototyping effort	12 Month(s)

Return to List
Contract
View/Process
Funding
Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 25/0 (Technical)

Title: Ground System Support for the Hubble Vehicle Rescue Mission

Task Period: 02/05/2005 - 02/04/2006

Flight: Non-Flight

Process Stage: Fully_Awarded

Process Date: 02/18/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost: \$75,000.00

Current Mod Max. Fee: \$6,562.00

Current Mod Cost(Mod Est Cost + Mod Max Fee): \$81,562.00

Total Estimated Cost: \$75,000.00

Total Maximum Fee: \$6,562.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$81,562.00

Assistant Technical Representative (ATR) EDWIN H FUNG	<input type="checkbox"/> Signature	Date 12/28/2004 10:32 PM	Org Code 584.0	Phone (301)286-7347
Branch Head JOHN T DONOHUE	<input type="checkbox"/> Signature JOHN T DONOHUE	Date 12/30/2004 08:57 PM	Org Code 584.0	Phone (301)286-6149
Contract Resource Analyst PEIFEN SHAW	<input type="checkbox"/> Signature PEIFEN SHAW	Date 01/04/2005 09:25 AM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input type="checkbox"/> Signature WALTER T FLOURNOY	Date 02/17/2005 04:15 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/18/2005 06:47 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/18/2005 04:32 PM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$75,000.00		Work Performed On-Site: All		
Funding Information: 51-458-20-20(SAEX22004D)		Government Furnished Property/Facilities: Yes		
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: Yes				
Deliver To: EDWIN H FUNG , Code 584.0, Bldg 23 , Room W217				

Proposal Instructions

Item Document Type Document Description

- | | | |
|---|----------------|--|
| 1 | Cost Estimate | This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order. |
| 2 | Implementation | This document should include the technical approach, period of performance, |

- Plan additional cost information, and any other information required to determine the reasonableness of the Contractors proposal.
- 3 Miscellaneous Do Not Delet! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element

51-458-20-20

Fiscal Year/Fund

SAEX22004D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Property

Item	Property Type	Property Description
1	Facility	ASIST Development Lab (Bldg 29, Rm 250)
2	Property	Computers in ASIST Development Lab

Statement of Work

Item Description	
1 To provide engineering/design support for the Hubble Robotics Vehicle Project	
Performance Requirements	Delivery Schedule:
To install the ASIST Ground System in the HRV Flight Software Lab and to provide technical support.	12 Month(s)
To provide support for the HRV-EM project in system requirement definitions, interface control document definitions.	12 Month(s)
To provide progress with monthly status reports.	12 Month(s)

0

To view the original Task Order click "Get Original or Mod" button while "0" appears in the drop down box. To view any of the Task Modifications, click "Get Original or Mod" with the desired mod number selected in the drop down box.

Clicking this "View SOW History" button will display a listing of all Statement of Work Items with all of the associated Performance Specifications, Documents and Journal Entries from the original task as well as any task modifications that exist in the system.

Task Num/Mod Num: 28/0 (Technical) **Title:** Optical Engineering Support to the Terrestrial Planet Finder – Coronagraph, Scattered Light Measurements **Task Period:** 03/08/2005 - 02/04/2006

Flight: Non-Flight **Process Stage:** Fully_Awarded **Status Date:** 03/08/2005 **Awarded To:** SGT Inc.

Current Mod. Est. Cost: \$125,000.00 **Current Mod Max. Fee:** \$10,900.00 **Current Mod Cost (Mod Est Cost + Mod Max Fee):** \$135,900.00

Total Est. Cost: \$125,000.00 **Total Maximum Fee:** \$10,900.00 **Task Order Total Cost (Total Est Cost + Total Max Fee):** \$135,900.00

Assistant Technical Representative (ATR) RAYMOND G OHL	<input type="text" value="Date"/>	Org Code 551.0	Phone (301)286-8368
Branch Head PETER W MAYMON	<input type="text" value="Date"/>	Org Code 551.0	Phone (301)286-7531
Contract Resource Analyst MARGARET S PAVLINIC	<input type="text" value="Date"/>	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.			
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY <input type="text" value="Signature"/> WALTER T FLOURNOY	Date 09/08/2005 11:08 AM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) MELISSA L MOORE <input type="text" value="Signature"/> MAYRA A NIEVES-TORRES	Date 09/08/2005 02:07 PM	Org Code 210.M	Phone (301)286-4240
Contracting Officer (CO) RAY JAMES SISNEROS <input type="text" value="Signature"/> GERALDINE T HUMPHREY	Date 09/12/2005 08:01 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$0.00 Cost Estimate File Attached: No		Work Performed On-Site: All	
Funding Information: 51-782-04-00(SAEX22004D)		Government Furnished Property/Facilities: Yes	
Task Background Attached: Yes			
Contractor will develop specification or statement of work under this task for a future procurement: No			
Deliver To: RAYMOND G OHL , Code 551.0, Bldg , Room			

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element	Fiscal Year/Fund
51-782-04-00	SAEX22004D

Property

Item	Property Type	Property Description
1	Facility	NASA/GSFC DGEF laboratory
2	Property	desktop PC
3	Property	laboratory equipment (various)

Statement of Work

Item	Description	Delivery Schedule:
1	statement of work	
	Performance Specifications	
	component test of FAUST optics	1 Month(s)
	assembly and alignment of FAUST optics	1 Month(s)
	FAUST image testing	6 Week(s)
	iterations on test setup	2 Month(s)

final report	2 Week(s)	
Statement of Work Documents	Comment	
 sow_03jan05.doc	statement of work for 0.5 FTE scattered light task, FAUST setup	
Journal Entry	Entered By	Entry Date
 optical engineer, half-time (0.5 FTE over 1 year)	ATR	01/04/2005 07:07 AM

Task Order Documents



28_Task_Background_2078-0.txt

Comment: background for TPF-C scattered light measurements

Return to List Contract View/Process

Funding Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 29/0
(Technical)

Title: FFTB Engineering

Task Period: 03/16/2005 - 03/15/2006

Flight: Non-Flight

Process Stage:
Fully_Awarded

Process Date:
02/16/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost:
\$487,127.00

Current Mod Max. Fee:
\$42,623.00

Current Mod Cost(Mod Est Cost + Mod Max Fee):
\$529,750.00

Total Estimated Cost:
\$487,127.00

Total Maximum Fee:
\$42,623.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$529,750.00

Assistant Technical Representative (ATR) RICHARD D BURNS	<input type="checkbox"/> Signature	Date 01/07/2005 01:23 AM	Org Code 591.0	Phone (301)286-9818
Branch Head JOHN S GAGOSIAN	<input checked="" type="checkbox"/> Signature JOHN S GAGOSIAN	Date 01/07/2005 12:26 PM	Org Code 591.0	Phone (301)286-6392
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 01/07/2005 01:28 PM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 02/09/2005 12:27 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	 ERIC J NEWMAN	Date 02/16/2005 04:32 PM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature WILLIAM A HATCHL	Date 02/16/2005 05:09 PM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$540,000.00	Work Performed On-Site: All			
Funding Information: 51-458-11-16(ESAX22005D)	Government Furnished Property/Facilities: No			
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: RICHARD D BURNS , Code 591.0, Bldg 11 , Room S232B				

Proposal Instructions

Item Document Type Document Description

- 1 Cost Estimate This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
- 2 Implementation Plan This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal.
- 3 Miscellaneous Do Not Delet! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element

51-458-11-16

Fiscal Year/Fund

ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Statement of Work

Item Description	
1 FFTB Simulation Development	
Performance Requirements	Delivery Schedule:
The Contractor shall design, develop, integrate, test, document and execute FFTB simulation software based on a real-time, object-oriented distributed computing architecture. Support shall include modification and augmentation of existing formation flying simulation software at various stages of development. The Contractor shall ensure that ongoing development proceeds with no interruption. The contractor shall be responsible for maintaining a high-level design methodology for the FFTB software architecture that guides the development of future software capabilities to ensure compatibility with existing FFTB functionality. Existing software components include the following. (1) STARS (Spacecraft Trajectory and Attitude Real-time System): STARS is the real-time, high fidelity state propagation software. It provides real-time spacecraft states to the Spirent GPS Simulator, the Crosslink Channel Simulator, and the FFTB Data Visualization and Logging. (2) Flight Executive (FE): FE runs on the FFTB pseudo-flight processors. It is responsible for managing incoming sensor data, executing pseudo-on-board processes, and data handling amongst all internal and external processes. (3) GPS Adapter: GPS Adapter serves as the interface to multiple GPS receiver hardware including the PiVoT, Orion, and Ashtec; it standardizes the command and telemetry interfaces for uniform handling by the FE. (4) Crosslink Channel Simulator (CCS) Interface: This interface commands the CCS in real-time to introduce signal delay, Doppler, and attenuation into an RF crosslink signal based on the current satellite relative states. (5) Crosslink Hardware Interface: This interface provides input/output to crosslink hardware such as the Low Power Transceiver. (6) Crosslink Emulator: The Crosslink Emulator is a software emulation of the communication and ranging functions of a satellite crosslink. (7) FFTB Data Visualization and Logging: This tool enables on-the-fly plotting and logging of all relevant simulation data. (8) FFTB Scene Visualization/Animation: This interface sends STK/VO real-time state data for on-the-fly animation of the simulation. (9) FFTB Interface to Spirent GPS Simulator: This interface provides the appropriate data and command messages to the Spirent 4760 GPS Simulator. Messages are provided in real-time at 10Hz in the reference frame specified in the Spirent Users Manual. Appropriate reference frame transformations take place here. (10) Post-processing Analysis Tools: These tools provide the capability to automatically parse, process, and visualize	12 Month(s)

common formation navigation and control simulation results. All software items are targeted to the linux operating systems, and are programmed in the C++, Java, and/or C languages. All simulation applications operate in real time. Execution of this task requires correct application of formation flying standards; utilization of tools such as STARS, GEONS, and the FE; and experience in closing control loops in real time around the Spirent GPS Simulator and GPS receivers. It also relies on expertise in the following areas: (1) numerical integration techniques; (2) reference frame transformations (especially as applicable to the Spirent [NED] frame); (3) orbital force modeling; (4) satellite attitude propagation; (5) real time propagation; and (6) interaction of formation, orbit, and attitude control. Interprocess and computer-to-computer communication in the FFTB utilizes the Spread Toolkit as a middleware solution. The contractor shall utilize Spread properly to ensure successful FFTB functionality.

Item Description

2 Formation Flying Algorithm Integration

Performance Requirements	Delivery Schedule:
<p>The Contractor shall continue the modeling, simulation, and integration of Two-Way Time Transfer (TWTT) technology including the effects of relative spacecraft motion and the theory of relativity. The Contractor shall implement and augment TWTT using timing devices, real-time simulation of spacecraft communications and ranging, and time transfer post-processing analysis tools. The Contractor shall develop and document standard interfaces to formation GN&C software to facilitate testing of developmental formation flying algorithms. The interfaces shall support algorithms developed in MATLAB and C. The Contractor shall provide technical support to users of the FFTB (both locally and remotely) in running hardware-in-the-loop testing of the users' algorithms in the FFTB, processing data post-simulation, and analyzing simulation results. The Contractor shall execute hardware-in-the-loop testing in the FFTB. The contractor shall successfully investigate, isolate, and rectify any test anomalies related to FFTB configuration errors. This requires knowledge of each component of the FFTB, in addition to expertise in configuring, operating, interfacing, and debugging the Spirent 4760 GPS Simulator in externally-driven, real-time control mode. The Contractor shall successfully integrate and operate the crosslink channel simulator (CCS) upon delivery to the FFTB. The Contractor shall be responsible for automating the configuration and execution of simulations in the FFTB to the extent possible. This automation shall be accomplished through bash scripting, PERL programming, and development of Graphical User Interfaces and Command-Line Interfaces. This automation shall further include the automation of the post-simulation analysis tools run largely in MATLAB, FORTRAN, and C.</p>	12 Month(s)

Item Description

3 Computer Systems Administration

Performance Requirements	Delivery Schedule:
<p>The FFTB operates using between 10-15 linux based computers with between 10-20 users at any given time. The Contractor shall provide systems administration for all linux computers within the FFTB. The FFTB employs a security policy featuring secure firewall access. The Contractor shall configure, operate, and maintain the linux based firewall and a local area network behind that firewall consistent with GSFC security policy as well as standard professional practices. The</p>	12 Month(s)

Contractor shall execute daily differential and periodic full backups of the FFTB computer systems. This process shall be automated and utilize the existing FFTB backup utilities and equipment. It is essential to ensure no interruption in this critical data service. The Contractor shall be responsible for operating and maintaining system development and analysis tools on the FFTB system including, but not limited to, the FFTB intranet, FFTB file sharing services, FFTB Issue Tracking Service, and FFTB Version Control System. These responsibilities require proficiency in the operation, maintenance, and use of Subversion version control system, CVS, Mantis Bug Tracking System, intranet systems, Ethereal, and NFS.

Item Description

4 Formation Flying Systems Engineering

Performance Requirements	Delivery Schedule:
<p>Development and operation of the FFTB requires a tightly integrated assemblage of formation flying dynamics, navigation, and control analysis, modular software, and hardware-in-the-loop infrastructure development and operation. Furthermore, engineering support for FFTB is not limited to the development and operation of the FFTB, but shall include end-to-end formation flying systems engineering in support of formation GN&C algorithm and hardware development and assessment. Consequently, the Contractor shall execute engineering design and analysis, and provide technical recommendations to the ATR, in the following areas: (1) Formation flying dynamics, including high fidelity force modeling, nonlinear systems with widely varying scales, relative motion in low and high earth orbit as well as near libration points, dynamical systems theory including aspects of perturbation theory, standard relative motion approximations including Hill's equations and extensions to include eccentricity and orbital perturbations, dynamics of standard spacecraft formations including J2 invariant and Projected Circular, halo and Lissajous orbits at libration points and implications for spacecraft relative motion; (2) Flight navigation, including the application of extended Kalman filters (EKFs) such as GEONS, principles of satellite relative navigation, distributed measurement techniques using intersatellite communications systems, use of differential GPS measurements in the GEONS EKF, and operation of GPS hardware including the PiVoT and Orion; (3) Feedback control systems (orbit, attitude and 6 degree of freedom relative motion) including continuous and discretized control through simulated and hardware-in-the-loop crosslinks; (4) Application of key GSFC software products such as GEONS and STARS; (5) Application of the Spirent GPS simulator to closed-loop, realtime control of hardware-in-the-loop formation flying systems; (6) Operation of GPS receivers and cross-link transceiver hardware, including hardware in-the-loop testing, device troubleshooting, RF component configuration, and cable routing.</p>	<p>12 Month(s)</p>

Return to List Contract View/Process

Funding Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 30/0
(Technical)

Title: STEREO Instrument Systems Task

Task Period: 02/05/2005 - 03/30/2006

Flight: Non-Flight

Process Stage:
Fully_Awarded

Process Date:
02/18/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost:
\$481,288.00

Current Mod Max. Fee:
\$42,112.00

Current Mod Cost(Mod Est Cost + Mod Max Fee):
\$523,400.00

Total Estimated Cost:
\$481,288.00

Total Maximum Fee:
\$42,112.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$523,400.00

Assistant Technical Representative (ATR) MICHAEL DELMONT	<input type="checkbox"/> Signature	Date 01/07/2005 05:32 PM	Org Code 463.0	Phone (301)286-1228
Branch Head NICHOLAS G CHRISSOTIMOS	<input type="checkbox"/> Signature NICHOLAS G CHRISSOTIMOS	Date 01/07/2005 05:36 PM	Org Code 460.0	Phone (301)286-5108
Contract Resource Analyst PEIFEN SHAW	<input type="checkbox"/> Signature PEIFEN SHAW	Date 01/10/2005 08:41 AM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input type="checkbox"/> Signature WALTER T FLOURNOY	Date 02/09/2005 12:33 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input type="checkbox"/> Signature  ERIC J NEWMAN	Date 02/15/2005 04:12 PM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/18/2005 07:00 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$492,000.00	Work Performed On-Site: All			
Funding Information: 51-883-08-01(ESAX22005D)	Government Furnished Property/Facilities: No			
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: MICHAEL DELMONT , Code 463.0, Bldg 6 , Room C100C				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delet! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51-883-08-01

Fiscal Year/Fund
ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
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Total Funding	\$0.00	\$0.00	\$0.00
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Statement of Work

Item Description	
1 Task statement	
Performance Requirements	Delivery Schedule:
Provide montly status reports, inputs to project MSR and Project reviews	1 Month(s)
Statement of Work Documents	Comment
 SOW METS task.doc	None

[Return to List](#) [Contract](#) [View/Process](#)
[Funding](#) [Create Task Mod](#)

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 31/0 (Technical)

Title: HRV ACE Box Software Development

Task Period: 02/07/2005 - 02/07/2008

Flight: Non-Flight

Process Stage: Fully_Awarded

Process Date: 02/18/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost: \$3,000,000.00

Current Mod Max. Fee: \$26,250.00

Current Mod Cost(Mod Est Cost + Mod Max Fee): \$3,026,250.00

Total Estimated Cost: \$3,000,000.00

Total Maximum Fee: \$26,250.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$3,026,250.00

Assistant Technical Representative (ATR) CHARLES E CLAGETT	<input checked="" type="checkbox"/> Signature	Date 01/12/2005 11:56 AM	Org Code 596.0	Phone (301)286-2438
Branch Head CHARLES E CLAGETT	<input checked="" type="checkbox"/> Signature CHARLES E CLAGETT	Date 01/12/2005 11:56 AM	Org Code 596.0	Phone (301)286-2438
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 01/12/2005 12:02 PM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 02/11/2005 01:00 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/18/2005 06:46 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/18/2005 04:33 PM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$3,000,000.00	Work Performed On-Site: All			
Funding Information: 51-458-11-36(ESAX22005D)	Government Furnished Property/Facilities: No			
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: CHARLES E CLAGETT , Code 596.0, Bldg 11 , Room S137B				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delet! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element**Fiscal Year/Fund**

51-458-11-36

ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Statement of Work

Item Description	
1 Software Development	
Performance Requirements	Delivery Schedule:
General software support in the development of the HRV ACE Box. This shall include code development, code testing, design review support and documentation of the software. The deliverable for this item is a monthly progress report.	36 Month(s)

[Return to List](#) [Contract](#) [View/Process](#)
[Funding](#) [Create Task Mod](#)

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 32/0
(Technical)

Title: STEREO Spacecraft/Instrument Systems Engineer

Task Period: 02/07/2005 - 04/15/2006

Flight: Non-Flight

Process Stage: Fully_Awarded

Process Date: 03/04/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost:
\$250,000.00

Current Mod Max. Fee:
\$21,250.00

Current Mod Cost(Mod Est Cost + Mod Max Fee):
\$271,250.00

Total Estimated Cost:
\$250,000.00

Total Maximum Fee:
\$21,250.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$271,250.00

Assistant Technical Representative (ATR) MARK M JAROSZ	<input type="checkbox"/> Signature	Date 02/03/2005 04:23 PM	Org Code 463.0	Phone (301)286-8084
Branch Head NICHOLAS G CHRISSOTIMOS NICHOLAS G CHRISSOTIMOS	<input checked="" type="checkbox"/> Signature	Date 02/03/2005 04:27 PM	Org Code 460.0	Phone (301)286-5108
Contract Resource Analyst PEIFEN SHAW I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 02/04/2005 07:30 AM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature	Date 03/03/2005 11:45 AM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature	Date 03/04/2005 06:59 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature	Date 03/04/2005 07:01 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$250,000.00	Work Performed On-Site: Partial			
Funding Information: 51-883-08-01(ESAX22005D)	Government Furnished Property/Facilities: No			
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: MARK M JAROSZ , Code 463.0, Bldg , Room				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor

hours and costs to perform the order.

- 2 Miscellaneous Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51-883-08-01

Fiscal Year/Fund
ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Statement of Work

Item Description	
1 Systems Engineering Support	
Performance Requirements	Delivery Schedule:
Responsible for the development of test procedures and verification of spacecraft and observatory system level requirements during the integration, test, and launch site processing phase of the STEREO project..	12 Month(s)
Perform as a systems engineering team member and demonstrate the ability to lead spacecraft and observatory systems testing and integration tasks.	12 Month(s)
Statement of Work Documents	Comment
 Systems Engineer.doc	Systems Engineer Task Description
Item Description	
2 Deliverables	
Performance Requirements	Delivery Schedule:
Monthly Status Report	14 Month(s)

Return to List
Contract
View/Process
Funding
Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 33/0 (Technical) **Title:** HST Internet Applications and Multimedia SW, Development, and Maintenance

Task Period: 02/05/2005 - 02/04/2006

Flight: Non-Flight

Process Stage: Fully_Awarded

Process Date: 02/18/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost: \$150,000.00

Current Mod Max. Fee: \$13,125.00

Current Mod Cost(Mod Est Cost + Mod Max Fee): \$163,125.00

Total Estimated Cost: \$150,000.00

Total Maximum Fee: \$13,125.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$163,125.00

Assistant Technical Representative (ATR) LINDA C PATTISON	<input checked="" type="checkbox"/> Signature	Date 01/11/2005 05:03 PM	Org Code 440.0	Phone (301)286-2684
Branch Head PRESTON M BURCH	<input checked="" type="checkbox"/> Signature PRESTON M BURCH	Date 01/14/2005 03:17 PM	Org Code 440.0	Phone (301)286-7477
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 01/18/2005 08:34 AM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 02/17/2005 04:19 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/18/2005 06:47 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/18/2005 04:34 PM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$150,000.00	Work Performed On-Site: All			
Funding Information: 51-458-70-20(ESAX22005D)	Government Furnished Property/Facilities: Yes			
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: LINDA C PATTISON , Code 440.0, Bldg 7 , Room 288B				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delet! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51-458-70-20

Fiscal Year/Fund
ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Property

Item	Property Type	Property Description
1	Property	Desktop computer

Statement of Work

Item Description	
1 HST Internet Apps and Multimedia support	
Performance Requirements	Delivery Schedule:
The contractor shall generate new or modify/maintain existing HST Servicing Mission custom developed Internet applications, as well as video capture hardware and software, that has been developed for the HST Project specifically for previous and future Servicing and/or De-Orbit Missions. This includes system enhancements, new and upgraded application functionality, and new system and database capabilities for the custom developed applications. Such enhancements would include, as required, upgraded functionality directed to robotic servicing.	365 Day(s)
The contractor shall develop and maintain on the HST MIMS Servers, a Web-based model of the HST that will easily identify specific regions of the HST and associated multimedia (photo and video) products. Links shall be provided for: detailed pre-mission mockup images residing in the Hubble Digital Imaging System (HDIS), previous mission imagery that is applicable to current servicing mission activity, and access to videos and photos taken during on-orbit mission activities. Interfaces to systems supporting robotic servicing activities will be established, as required, to link the database information to the appropriate control elements of a robotic servicing mission.	12 Month(s)
The contractor shall maintain the servicing mission photo databases (VIPR and ESC) from previous servicing missions and populate and maintain the data for photos from future servicing and/or de-orbit missions, including descriptions of anomalies found on the HST, as well as nominal and contingency mission activity. The database will be updated as information is obtained to include the observations from any future servicing or retrieval mission, and post-mission the data will be integrated with the data from previous servicing missions to create a unified search capability. Interfaces will be established, as required, to permit photo/video taken by a robotic mission to be incorporated into the existing databases.	12 Month(s)
The contractor shall maintain and update the HST Mission Information Management System, its Web Server, and its photo databases and shall operate the video capture system during all required mission simulations and mission operations, and shall prepare for such support for any future servicing or de-orbit mission. System maintenance will include the management of system security for the MIMS servers, including reviewing bulletins provided by the NASA Incident Response Center for applicability to software used on	12 Month(s)

the MIMS servers.	
Item Description	
2 SDO Mission Support	
Performance Requirements	Delivery Schedule:
The contractor shall maintain and update the SDO Video Imaging and Photographic Requirements System, its Web Server, and its photo and video databases. This may include updates to database application software, including any new database capabilities. Also, new versions of web server software, database management system software, and other application software will be installed as needed, based on needed functionality and security issues.	12 Month(s)

Return to List Contract View/Process

Funding Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 34/0
(Technical)

Title: Code 592 SEED Support

Task Period: 02/05/2005 - 12/31/2005

Flight: Non-Flight

Process Stage:
Fully_Awarded

Process Date:
02/18/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost:
\$69,377.00

Current Mod Max. Fee:
\$6,030.00

Current Mod Cost(Mod Est Cost + Mod Max Fee):
\$75,407.00

Total Estimated Cost:
\$69,377.00

Total Maximum Fee:
\$6,030.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$75,407.00

Assistant Technical Representative (ATR) JENNIFER M BRACKEN	<input type="checkbox"/> Signature	Date 01/13/2005 02:31 PM	Org Code 592.0	Phone (301)286-3688
Branch Head MARK D STEINER	<input checked="" type="checkbox"/> Signature MARK D STEINER	Date 01/14/2005 09:38 AM	Org Code 592.0	Phone (301)286-5769
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 01/19/2005 01:10 PM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 02/09/2005 12:37 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	 ERIC J NEWMAN	Date 02/15/2005 04:38 PM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/18/2005 07:06 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$75,000.00	Work Performed On-Site: Partial			
Funding Information: 51train500(esax22005d)	Government Furnished Property/Facilities: Yes			
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: JENNIFER M BRACKEN , Code 592.0, Bldg 23 , Room W439				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delet! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element

51train500

Fiscal Year/Fund

esax22005d

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Property

Item	Property Type	Property Description
1	Property	Laptop Computer

Statement of Work

Item Description	
1 SEED SOW	
Performance Requirements	Delivery Schedule:
Monthly reports defining work accomplished. Work to be accomplished is defined in the attached document. Work to be accomplished by 12/31/05.	11 Month(s)
Statement of Work Documents	Comment
 SEED SOW.doc	SOW

Return to List Contract View/Process

Funding Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 36/0
(Technical)

Title: ESDIS Metrics and Engineering Task

Task Period: 02/05/2005 - 02/04/2006

Flight: Non-Flight

Process Stage:
Fully_Awarded

Process Date:
02/18/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost:
\$600,000.00

Current Mod Max. Fee:
\$52,500.00

Current Mod Cost(Mod Est Cost + Mod Max Fee):
\$652,500.00

Total Estimated Cost:
\$600,000.00

Total Maximum Fee:
\$52,500.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$652,500.00

Assistant Technical Representative (ATR) JEANNE BEHNKE	<input type="checkbox"/> Signature	Date 01/27/2005 02:17 PM	Org Code 586.0	Phone (301)614-5326
Branch Head J. STEVE METCALF	<input checked="" type="checkbox"/> Signature J. STEVE METCALF	Date 01/27/2005 03:17 PM	Org Code 423.0	Phone (301)614-5311
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 01/27/2005 04:10 PM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 02/17/2005 04:32 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/18/2005 06:46 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/18/2005 04:35 PM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$600,000.00		Work Performed On-Site: Partial		
Funding Information: 51-667-50-60(SAEX22004D)		Government Furnished Property/Facilities: Yes		
Task Background Attached: Yes				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: JEANNE BEHNKE , Code 423.0, Bldg 32 , Room E220C				

Proposal Instructions

Item Document Type Document Description

- 1 Cost Estimate This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.

- 2 Implementation Plan This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal.
- 3 Miscellaneous Do Not Delet! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element

51-667-50-60

Fiscal Year/Fund

SAEX22004D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Property

Item	Property Type	Property Description
1	Facility	Office Space Maybe?

Statement of Work

Item Description	
1 ESDIS Metrics and Engineering Task 1	
Performance Requirements	Delivery Schedule:
Performance is based on the description in accompanying task statement. period of performance begins with the end of the MEDS contract and goes for 365 days.	365 Day(s)
Statement of Work Documents	Comment
 METS_SOW_Behnke.doc	SOW

Task Order Documents



36_Task_Background_2116-0.doc

Comment: Task statement

Return to List
Contract
View/Process

Funding
Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 37/0
(Technical)

Title: Systems Engineering Support Task

Task Period: 02/07/2005 - 04/07/2006

Flight: Flight

Process Stage:
Fully_Awarded

Process Date:
02/18/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost:
\$414,335.00

Current Mod Max. Fee:
\$36,255.00

Current Mod Cost(Mod Est Cost + Mod Max Fee):
\$450,590.00

Total Estimated Cost:
\$414,335.00

Total Maximum Fee:
\$36,255.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$450,590.00

Assistant Technical Representative (ATR) ROBERT CALVO	<input type="checkbox"/> Signature	Date 01/19/2005 02:24 PM	Org Code 303.0	Phone (301)286-4411
Branch Head THOMAS D MILLER	<input checked="" type="checkbox"/> Signature THOMAS D MILLER	Date 01/19/2005 03:52 PM	Org Code 464.0	Phone (301)286-2236
Contract Resource Analyst PEIFEN SHAW <i>Susan Grieve</i> SUSAN R GRIEVE		Date 01/21/2005 08:51 AM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Flight Assurance Representative ROBERT CALVO	<input checked="" type="checkbox"/> Signature ROBERT CALVO	Date 01/24/2005 04:33 PM	Org Code 303.0	Phone (301)286-4411
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 02/09/2005 12:58 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CS) GERALDINE T HUMPHREY <i>Eric Newman</i> ERIC J NEWMAN		Date 02/15/2005 05:14 PM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/18/2005 07:07 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$350,000.00		Work Performed On-Site: All		
Funding Information: 518840102(ESAX22005D)		Government Furnished Property/Facilities: Yes		
Task Background Attached: Yes				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: ROBERT CALVO , Code 303.0, Bldg 29 , Room 367				

Proposal Instructions

Item Document Type Document Description

- | | | |
|---|---------------------|--|
| 1 | Cost Estimate | This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order. |
| 2 | Implementation Plan | This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal. |
| 3 | Miscellaneous | Do Not Delet! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal. |

Funding

Job Order Number/WBS Element

518840102

Fiscal Year/Fund

ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Property

Item	Property Type	Property Description
1	Property	Dell Laptop ECN 2133191
2	Property	Dell Monitor DS/N MX-080466-47741-234-41CP
3	Property	Dell Monitor ECN 3015654
4	Property	DELL PC ECN 3015649

Statement of Work

Item Description	
1 Systems Engineering Support Task	
Performance Requirements	Delivery Schedule:
Function 2B: Non-Flight Fabrication, Assembly and Testing Services - Details in attached SOW document.	14 Month(s)
Function 2C: Integration, Test, and Verification Services - Details in attached SOW document.	14 Month(s)
Function 2F: Mission Assurance and Systems Safety Services - Details in attached SOW document.	14 Month(s)
Function 3B: Mission Systems Engineering - Details in attached SOW document.	14 Month(s)
Function 3C: Instrument Systems Engineering - Details in attached SOW document.	14 Month(s)
Statement of Work Documents	Comment
 METS Task4SDO_BC.doc	METS SDO System Engineering Task

Task Order Documents

 37_QA_Requirements_2117-0.doc

Comment: SDO MAR

 37_Task_Background_2117-0.doc

Comment: Task Background per COTR's email.

Return to List Contract View/Process

Funding Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 38/0 (Technical)

Title: HRV/EM FSW Test Support

Task Period: 02/05/2005 - 02/04/2006

Flight: Non-Flight

Process Stage: Fully_Awarded

Process Date: 02/18/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost: \$758,000.00

Current Mod Max. Fee: \$66,325.00

Current Mod Cost(Mod Est Cost + Mod Max Fee): \$824,325.00

Total Estimated Cost: \$758,000.00

Total Maximum Fee: \$66,325.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$824,325.00

Assistant Technical Representative (ATR) THOMAS G CLEMENT	<input checked="" type="checkbox"/> Signature	Date 01/13/2005 06:10 PM	Org Code 582.0	Phone (301)286-5346
Branch Head ELAINE M SHELL	<input checked="" type="checkbox"/> Signature ELAINE M SHELL	Date 01/14/2005 09:22 AM	Org Code 582.0	Phone (301)286-2628
Contract Resource Analyst PEIFEN SHAW I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 01/14/2005 10:09 AM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 02/17/2005 04:40 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/18/2005 06:47 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/18/2005 04:35 PM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$758,000.00	Work Performed On-Site: All			
Funding Information: 51-458-11-37(ESAX22005D)	Government Furnished Property/Facilities: No			
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: THOMAS G CLEMENT , Code 582.0, Bldg 3 , Room 242				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delet! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51-458-11-37

Fiscal Year/Fund
ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
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Total Funding \$0.00 \$0.00 \$0.00

Statement of Work

Item Description	
1 SOW	
Performance Requirements	Delivery Schedule:
See attached SOW.	12 Month(s)
Statement of Work Documents	Comment
 OSC fy05 HRV-EM FSW Test Support SOW.doc	None

Return to List Contract View/Process

Funding Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 39/0
(Technical)

Title: ISIM Systems Engineering Support

Task Period: 02/05/2005 - 02/04/2008

Flight: Non-Flight

Process Stage:
Fully_Awarded

Process Date:
02/18/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost:
\$588,024.00

Current Mod Max. Fee:
\$45,195.00

Current Mod Cost(Mod Est Cost + Mod Max Fee):
\$633,219.00

Total Estimated Cost:
\$588,024.00

Total Maximum Fee:
\$45,195.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$633,219.00

Assistant Technical Representative (ATR) RAY A LUNDQUIST	<input type="checkbox"/> Signature	Date 01/14/2005 02:33 PM	Org Code 599.0	Phone (301)286-0617
Branch Head ERIC K ISAAC	<input checked="" type="checkbox"/> Signature ERIC K ISAAC	Date 01/18/2005 03:31 PM	Org Code 590.0	Phone (301)286-8152
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 01/18/2005 04:09 PM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 02/09/2005 01:04 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	 ERIC J NEWMAN	Date 02/15/2005 05:25 PM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/18/2005 07:06 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$600,000.00	Work Performed On-Site: All			
Funding Information: 51-782-06-78(ESAX22005D)	Government Furnished Property/Facilities: No			
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: Yes				
Deliver To: RAY A LUNDQUIST , Code 443.0, Bldg 22 , Room 334				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delet! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51-782-06-78

Fiscal Year/Fund
ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Statement of Work

Item Description 1 SE support	
Performance Requirements ISIM System Engineering Support - Perform Lead ISIM to Observatory Interface Definition - Maintain ISIM to Spacecraft IRD (IOS) Document and changes - Provide input to Science Instrument IRDs - Perform ISIM Requirements trace-ability - Provide Weekly Inputs - Coordinate Monthly Presentations	Delivery Schedule: 12 Month(s)
Item Description 2 SI SE Support	
Performance Requirements SI SE Support - Maintain SI IRD and ICD (book manager) - Perform requirement flow to SI IRD - Monitor SI Development and Verification process - Monitor or perform (as necessary) SI Trade Studies - Provide SI Instrument manager support - Perform DOORS Database - Provide Weekly inputs - Provide Monthly inputs	Delivery Schedule: 12 Month(s)
Item Description 3 FGS SE Support	
Performance Requirements FGS SE Support - Maintain FGS IRD and ICD (book manager) - Perform requirement flow to FGS IRD - Monitor FGS Development and Verification process - Monitor or perform (as necessary) FGS Trade Studies - Provide FGS manager support - Perform DOORS Database - Provide Weekly inputs - Provide Monthly inputs	Delivery Schedule: 12 Month(s)

Return to List
Contract
View/Process
Funding
Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 43/0 (Technical)

Title: GOES N-P Project Mission Operations Services

Task Period: 02/07/2005 - 09/30/2005

Flight: Non-Flight

Process Stage: Fully_Awarded

Process Date: 02/18/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost: \$48,000,000.00

Current Mod Max. Fee: \$420,000.00

Current Mod Cost (Mod Est Cost + Mod Max Fee): \$48,420,000.00

Total Estimated Cost: \$48,000,000.00

Total Maximum Fee: \$420,000.00

Task Order Total Cost (Total Est Cost + Total Max Fee): \$48,420,000.00

Assistant Technical Representative (ATR) CAROLYN P DENT	<input checked="" type="checkbox"/> Signature	Date 01/21/2005 03:24 PM	Org Code 581.0	Phone (301)286-6801
Branch Head DAVID F MITCHELL	<input checked="" type="checkbox"/> Signature DAVID F MITCHELL	Date 01/21/2005 03:30 PM	Org Code 415.0	Phone (301)286-0415
Contract Resource Analyst PEIFEN SHAW I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 01/24/2005 09:13 AM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 02/18/2005 03:32 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/18/2005 04:43 PM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/18/2005 04:44 PM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$4,800,000.00		Work Performed On-Site: None		
Funding Information: 51R-616-45(SAEX22004R)		Government Furnished Property/Facilities: Yes		
Task Background Attached: Yes				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: CAROLYN P DENT, Code 415.0, Bldg 16W, Room N008J				

Proposal Instructions

Item Document Type Document Description

- | | | |
|---|---------------------|--|
| 1 | Cost Estimate | This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order. |
| 2 | Implementation Plan | This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal. |
| 3 | Miscellaneous | Do Not Delet! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal. |

Funding

Job Order Number/WBS Element

51R-616-45

Fiscal Year/Fund

SAEX22004R

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Property

Item	Property Type	Property Description
1	Facility	NOAA Satellite Operations Control Center at Suitland, MD
2	Property	Computing Equipment at NOAA Satellite Operations Control Center (SOCC) in Suitland, MD
3	Property	MOST LAN Server Equipment

Statement of Work

Item Description	
1 Statement of Work	
Performance Requirements	Delivery Schedule:
Performance requirements provided in SOW document	8 Month(s)
Statement of Work Documents	Comment
 METS task SOW.doc	SOW

Task Order Documents



43_Task_Background_2127-0.doc

Comment: Task Background

[Return to List](#) [Contract](#) [View/Process](#)
[Funding](#) [Create Task Mod](#)

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 44/0
(Technical)

Title: Grating Study for SUMI

Task Period: 03/07/2005 - 04/06/2005

Flight: Non-Flight

Process Stage:
Fully_Awarded

Process Date:
03/02/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost:
\$5,000.00

Current Mod Max. Fee:
\$425.00

Current Mod Cost(Mod Est Cost + Mod Max Fee):
\$5,425.00

Total Estimated Cost:
\$5,000.00

Total Maximum Fee:
\$425.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$5,425.00

Assistant Technical Representative (ATR) RENE A BOUCARUT	<input type="checkbox"/> Signature	Date 02/10/2005 04:58 PM	Org Code 551.0	Phone (301)286-4251
Branch Head PETER W MAYMON	<input checked="" type="checkbox"/> Signature PETER W MAYMON	Date 02/15/2005 11:02 AM	Org Code 551.0	Phone (301)286-8937
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 02/15/2005 03:28 PM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 02/28/2005 05:12 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 03/02/2005 08:12 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 03/02/2005 08:12 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$5,000.00	Work Performed On-Site: All			
Funding Information: 51-432-03-27(SAEX22004D)	Government Furnished Property/Facilities: Yes			
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: RENE A BOUCARUT , Code 551.0, Bldg 5 , Room C326				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor

hours and costs to perform the order.

- 2 Miscellaneous Do Not Delet! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51-432-03-27

Fiscal Year/Fund
SAEX22004D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Property

Item	Property Type	Property Description
1	Property	PCGrate software

Statement of Work

Item Description	
1 statement	
Performance Requirements	Delivery Schedule:
Written Report	1 Month(s)
Statement of Work Documents	
Comment	
 METS_SOW_sumi_tasks[1].txt	None
Item Description	
2 Addition description of task	
Performance Requirements	Delivery Schedule:
Periodic reporting	1 Week(s)
Statement of Work Documents	
Comment	
 METS_SOW_sumi_tasks_additional_information.doc	Per request of Walt Flournoy

[Return to List](#) [Contract](#) [View/Process](#)
[Funding](#) [Create Task Mod](#)

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 45/0 **Title:** Express Pallet/Unpressurised Logistics Carrier (Technical) concept development

Task Period: 03/23/2005 - 08/31/2005

Flight: Non-Flight

Process Stage: Fully_Awarded

Process Date: 03/23/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost: \$930,000.00

Current Mod Max. Fee: \$81,375.00

Current Mod Cost(Mod Est Cost + Mod Max Fee): \$1,011,375.00

Total Estimated Cost: \$930,000.00

Total Maximum Fee: \$81,375.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$1,011,375.00

Assistant Technical Representative (ATR) MICHAEL L ADAMS	<input type="checkbox"/> Signature	Date 03/04/2005 03:21 PM	Org Code 442.0	Phone (301)286-2010
Branch Head FRANK J CEPOLLINA	<input checked="" type="checkbox"/> Signature FRANK J CEPOLLINA	Date 03/04/2005 03:30 PM	Org Code 442.0	Phone (301)286-1266
Contract Resource Analyst PEIFEN SHAW I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 03/07/2005 07:30 AM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 03/23/2005 10:26 AM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 03/23/2005 11:04 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 03/23/2005 11:05 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$930,000.00		Work Performed On-Site: Partial		
Funding Information: 51-477-05-00(ESAX22005D)		Government Furnished Property/Facilities: No		
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: MICHAEL L ADAMS , Code 442.0, Bldg , Room				

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Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51-477-05-00

Fiscal Year/Fund
ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
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Total Funding \$0.00 \$0.00 \$0.00

Statement of Work

Item Description	
1 ExP/ULC Deck Concept Development	
Performance Requirements	Delivery Schedule:
Develop an ExP/ULC deck concept that meets the requirements of SSP 52055 and SSP 57003. Support a Concept Review at JSC on March 29, 2005. Proceed with the preliminary design of the deck after completing the Concept Review.	8 Month(s)
Statement of Work Documents	Comment
 Express Pallet FY05 development effort supplemental data.doc	None
Item Description	
2 Avionics Development	
Performance Requirements	Delivery Schedule:
Develop the preliminary requirements and specifications for the 1553 Interface, the Ethernet Hub, the Power Converter, the Discrete Commanding Module, and the Analog Interface Module. Begin breadboard development of these modules.	8 Month(s)
Statement of Work Documents	Comment
 Express Pallet FY05 development effort supplemental data.doc	None

[Return to List](#) [Contract](#) [View/Process](#)
[Funding](#) [Create Task Mod](#)

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 46/0 (Technical) **Title:** Flight Software Branch (FSB) Requirements Engineering Task

Task Period: 02/05/2005 - 02/04/2006

Flight: Non-Flight

Process Stage: Fully_Awarded

Process Date: 02/18/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost: \$187,047.00

Current Mod Max. Fee: \$16,366.00

Current Mod Cost(Mod Est Cost + Mod Max Fee): \$203,413.00

Total Estimated Cost: \$187,047.00

Total Maximum Fee: \$16,366.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$203,413.00

Assistant Technical Representative (ATR) ELAINE M SHELL	<input type="checkbox"/> Signature ELAINE M SHELL	Date 01/25/2005 09:30 AM	Org Code 582.0	Phone (301)286-2628
Branch Head ELAINE M SHELL	<input type="checkbox"/> Signature ELAINE M SHELL	Date 01/25/2005 09:30 AM	Org Code 582.0	Phone (301)286-2628
Contract Resource Analyst PEIFEN SHAW I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.	<input type="checkbox"/> Signature PEIFEN SHAW	Date 01/25/2005 12:03 PM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input type="checkbox"/> Signature WALTER T FLOURNOY	Date 02/09/2005 01:09 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY  ERIC J NEWMAN	<input type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/16/2005 04:59 PM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/18/2005 07:04 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$200,000.00		Work Performed On-Site: All		
Funding Information: 51-470-90-20 (ESAX22005D)		Government Furnished Property/Facilities: Yes		
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: ELAINE M SHELL , Code 582.0, Bldg 3 , Room 206				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delet! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51-470-90-20

Fiscal Year/Fund
ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
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Total Funding	\$0.00	\$0.00	\$0.00
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Property

Item	Property Type	Property Description
1	Facility	Contractor office space on-site at GSFC

Statement of Work

Item Description	
1 SOW	
Performance Requirements	Delivery Schedule:
Technical Progress Report	1 Month(s)
SDO C&DH FSW Requirements Database initial update	2 Month(s)
SDO C&DH FSW Requirements Database updates(As required)	9 Month(s)
Additional FSW Requirements Databases(As required)	12 Month(s)
Statement of Work Documents	Comment
 METS Task 46 FSB Requirements Engineering SOW 20050118.doc	None

Return to List Contract View/Process

Funding Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 47/0 (Technical) **Title:** EOC Re-engineering and Systems Engineering

Task Period: 02/21/2005 - 10/28/2005

Flight: Non-Flight

Process Stage: Fully_Awarded

Process Date: 02/18/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost: \$800,000.00

Current Mod Max. Fee: \$70,000.00

Current Mod Cost(Mod Est Cost + Mod Max Fee): \$870,000.00

Total Estimated Cost: \$800,000.00

Total Maximum Fee: \$70,000.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$870,000.00

Assistant Technical Representative (ATR) GENE G KNOBLE	<input checked="" type="checkbox"/> Signature PAUL J ONDRUS	Date 01/21/2005 11:33 AM	Org Code 599.0	Phone (301)614-5410
Branch Head PAUL J ONDRUS	<input checked="" type="checkbox"/> Signature PAUL J ONDRUS	Date 01/21/2005 12:17 PM	Org Code 428.0	Phone (301)614-5347
Contract Resource Analyst PEIFEN SHAW I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 01/24/2005 09:32 AM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 02/17/2005 05:15 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/18/2005 06:47 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/18/2005 04:36 PM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$800,000.00	Work Performed On-Site: Partial			
Funding Information: 51-665-18-14(ESAX22005D)	Government Furnished Property/Facilities: Yes			
Task Background Attached: Yes				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: GENE G KNOBLE , Code 423.0, Bldg 32 , Room E110B				

Proposal Instructions

Item Document Type Document Description

- | | | |
|---|---------------------|--|
| 1 | Cost Estimate | This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order. |
| 2 | Implementation Plan | This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal. |
| 3 | Miscellaneous | Do Not Delet! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal. |

Funding

Job Order Number/WBS Element

51-665-18-14

Fiscal Year/Fund

ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Property

Item	Property Type	Property Description
1	Property	Workstations to develop software

Statement of Work

Item Description	
1 SOW	
Performance Requirements	Delivery Schedule:
1- The Contractor shall administer the EMOS systems to meet the EMOS requirements, as specified in the (ECS) EMOS Segment Requirements Baseline, project specific Ground System Requirements Documents (GSRDs), and related Interface Control Documents (ICDs). 2- Deliver regular reports on schedule. 3- Deliver software per published schedules. 4- Apply operating system and security patches on schedule. 5- Deliver one-time reports and studies on an agreed upon schedule.	10 Month(s)
Statement of Work Documents	Comment
 METS_SOW.doc	None

Task Order Documents

 47_Task_Background_2136-0.doc	Comment: None
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Return to List	Contract	View/Process
<input type="checkbox"/> Edit Task Header	<input type="checkbox"/> Proposal Instructions	<input type="checkbox"/> Funding
<input type="checkbox"/> Property/GFE	<input type="checkbox"/> Task Order Docs	<input type="checkbox"/> Statement of Work
<input type="checkbox"/> Cancel Task Order		

Contract: Multidisciplinary Engineering and Technical Services (METS) **Contract Num:** NNG05CA99C **Period:** 02/05/2005 - 02/04/2010

Task Num/Mod Num: 48/0 (Technical) **Title:** GOES N-P SYSTEMS ENGINEERING & RESIDENT OFFICE **Task Period:** 02/05/2005 - 09/30/2005

Flight: Non-Flight **Process Stage:** Branch_Review **Process Date:** 05/03/2005 **Status:** Awaiting Review

Assistant Technical Representative (ATR) STEPHEN V DEPALO	Date 05/03/2005 01:51 PM	Org Code 599.0	Phone (301)286-4935
Branch Head ERIC K ISAAC	Date	Org Code 590.0	Phone (301)286-8152
Contract Resource Analyst PEIFEN SHAW I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.	Date	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	Date	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	Date	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	Date	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$500,000.00		Work Performed On-Site: Partial	
Funding Information: 51R-616-45(SAEX22004R)		Government Furnished Property/Facilities: No	
Task Background Attached: No			
Contractor will develop specification or statement of work under this task for a future procurement: No			
Deliver To: STEPHEN V DEPALO , Code 415.0, Bldg , Room			

Proposal Instructions

Item Document Type Document Description

- | | | |
|---|---------------------|--|
| 1 | Cost Estimate | This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order. |
| 2 | Implementation Plan | This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal. |
| 3 | Miscellaneous | Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal. |

Funding

Job Order Number/WBS Element

51R-616-45

Fiscal Year/Fund

SAEX22004R

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
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Total Funding	\$0.00	\$0.00	\$0.00			
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Statement of Work

Item Description	
1 Word File Containing SOW	
Performance Requirements	Delivery Schedule:
See word file with SOW	8 Month(s)

Statement of Work Documents	Comment
 METS GOESN SYSENG & RES OFC.doc	None
Item Description	
2 Changes to original CTR	
Performance Requirements	Delivery Schedule:
No changes to performance reqt.	150 Day(s)
Statement of Work Documents	Comment
 METS Task 48 CTR changes.doc	None

GOES N-P Series Systems Engineering at GOES/BSS Residence Office

Scope of Work: This task is to provide engineering support services in accordance the METS SOW (Function 3) to the GOES N-P Project in the areas of spacecraft systems engineering, data systems and documentation management and during spacecraft build, assembly, integration and test at the spacecraft contractor's facility.

- a) Systems Engineering Support (2.5 FTE). The primary focus of this support is to provide onsite oversight of and insight into the spacecraft contractor design/development, test and verification program.
- b) Data Systems Management (1.0 FTE). The primary focus of this support is to maintain and operate the Project's GOES Residence Office Data Systems to capture, transfer (to GSFC) and archive spacecraft test data for engineering analysis.
- c) Documentation Management Support (1.0FTE). The primary focus of this support is to catalogue and track spacecraft test data documentation and contract deliverables housed at the RO.

The contractor shall provide the cognizant engineering support to:

- 1) Monitor and evaluate the spacecraft's performance per specifications, requirements and test criteria. Assist Project subsystem engineers in the collection and review of test data.
- 2) Review/comment on technical data, contract deliverables and documentation (e.g. test plans and procedures, engineering analyses, test data reports, etc).
- 3) Conduct technical assessments, trade studies, and analyses on issues, anomalies, failures and risks of flight and ground support/test equipment. Prepare presentations as required.
- 4) Support Project level technical meetings and major milestone reviews as requested. Respond to action items/request for information as appropriate by the due date.
- 5) Interface/coordinate on a regular basis with spacecraft contractor counterparts, and Project systems/subsystem personnel. Report on significant findings/status.
- 6) Support/monitor major functional and environmental tests at spacecraft contractor's. Support test readiness reviews and post-test data reviews.
- 7) Regularly attend spacecraft contractor's daily I&T and engineering meetings.
- 8) Participate as required in failure/risk review boards, peer reviews, configuration control boards, and review dry-runs.
- 9) Assist in the tracking/review/closure of Performance Verifications and Contract Deliverables.
- 10) Support/monitor spacecraft unit/subsystem testing activities and data reviews.
- 11) Provide a Project level liaison with contractor launch vehicle engineering organization and the spacecraft contractor regarding launch vehicle certification and spacecraft (payload) interfaces.
- 12) Maintain pertinent (uncontrolled) data on GOES Web Portal.
- 13) Complete and maintain certification of required training by NASA and spacecraft contractor (e.g. computer security, safety, contamination control, ESD, etc).
- 14) Coordinate review/data entry of spacecraft contract deliverables with Project personnel and Library staff.

- 15) Provide technical support to maintain and operate GRODAS. Support shall be available after normal duty hours (on call 24/7) to trouble shoot system problems during critical test phases.
- 16) Stop and report any unsafe act during test/operations.

Performance Specification: Acceptable performance is; 1) timely responses to actions/requests and meeting suspense dates; 2) technical accuracy and completeness of information/analyses and; 3) the ATR (and/or his designee) and onsite Government manager are satisfied that they are being kept informed of the status of work performed and of issues requiring their attention.

Deliverables:

Bi-weekly (Every other week) Status Report (~1-2 pages) GOES Project
The report will briefly status issues, action items, progress of ongoing assignments (to include performance verifications and data items) and priorities for next month. Contractor will coordinate and prepare agenda.

Trip Reports and Meeting minutes as required.

One of kind documentation as required (analyses, trades studies, etc)

Travel: ATR shall approve all travel.

- 1) Estimate one round trip per month (5 day duration) to either; BSS Los Angeles, CA , to GSFC, MD, to KSC Florida, or Fort Wayne Indiana.

3/23/05

METS CONTRACT NNG05CA99C

TASK 48 REQUESTED CHANGES FOLLOWING REVIEW OF CTR

Labor Category S08-S Admin Assistant should be estimated at .2 Full Time Equivalent (FTE) only.

One trip should be planned to San Jose for one night including air fare and rental car to the Omnisoft Company for training.

Labor Category S25-S and S26-S do not have any travel planned to KSC and we have verified that these two labor categories do have overtime planned which takes their estimates to 1.1 FTE.

Get Original or Mod

Print Screen

Close Window

To view the original Task Order click "Get Original or Mod" button while "0" appears in the drop down box. To view any of the Task Modifications, click "Get Original or Mod" with the desired mod number selected in the drop down box.

View SOW History

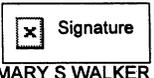
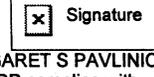
Clicking this "View SOW History" button will display a listing of all Statement of Work Items with all of the associated Performance Specifications, Documents and Journal Entries from the original task as well as any task modifications that exist in the system.

Task Num/Mod Num: 50/0
 Technical) Title: POES Project Support Task Period: 03/08/2005 - 02/05/2006

Flight: Non-Flight Process Stage: Fully_Awarded Status Date: 03/08/2005 Awarded To: SGT Inc.

Current Mod. Est. Cost: \$800,000.00 Current Mod Max. Fee: \$75,000.00 Current Mod Cost(Mod Est Cost + Mod Max Fee): \$875,000.00

Total Est. Cost: \$800,000.00 Total Maximum Fee: \$75,000.00 Task Order Total Cost(Total Est Cost + Total Max Fee): \$875,000.00

Assistant Technical Representative (ATR) MARY S WALKER	 Signature MARY S WALKER	Date 01/23/2006 01:32 PM	Org Code 480.0	Phone (301)286-2570
Branch Head KAREN N HALTERMAN	 Signature KAREN N HALTERMAN	Date 01/23/2006 02:14 PM	Org Code 461.0	Phone (301)286-2030
Contract Resource Analyst MARGARET S PAVLINIC	 Signature MARGARET S PAVLINIC	Date 01/24/2006 06:16 PM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with 48CFR 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	 Signature WALTER T FLOURNOY	Date 02/14/2006 05:41 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) MELISSA L MOORE	 Signature MELISSA L MOORE	Date 01/30/2006 08:53 AM	Org Code 210.M	Phone (301)286-4240
Contracting Officer (CO) RAY JAMES SISNEROS	 Signature RAY JAMES SISNEROS	Date 01/30/2006 06:47 PM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$2,750,000.00 Cost Estimate File Attached: No		Work Performed On-Site: All		
Funding Information: 51R-615-45-7497-01(ESAX22005R)		Government Furnished Property/Facilities: Yes		
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: MARY S WALKER , Code 480.0, Bldg , Room				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element	Fiscal Year/Fund
51r-615-45-4068-01	SAEX22004R

Property

Item	Property Type	Property Description
1	Property	Computers
2	Property	Pagers

Statement of Work

Item	Description				
1	POES Project Support				
	<table border="1"> <thead> <tr> <th>Performance Specifications</th> <th>Delivery Schedule:</th> </tr> </thead> <tbody> <tr> <td> General: The outputs of this task are to be produced in accordance with industry standard practices and the following applicable documents: 1.Performance Specification for the NOAA-K, L, M, N&N-prime Satellites: GSFC-S-480-25.1 2.Performance Assurance Requirements for the NOAA-K, L, M, N, N-prime Satellites: GSFC-S-480-26.1 3.Performance Specifications for the NOAA-K, L, M, N, N-prime spacecraft subsystems Technical Oversight Problem Identification: Acceptable performance is that the ATR/POES Project is satisfied that he/she is being kept informed of the status of technical problems, issues, concerns, and possible solutions. Reports and Documents: Technical performance will be based on thoroughness and completeness of written reports. Acceptable performance is that the material reflects the proper level of technical expertise and meets the objectives of the activity. Reports shall use photographs and diagrams as necessary and address objectives, techniques, results, conclusions, and recommendations. Reports shall be delivered to the ATR/POES Project both as a hard copy and in MS Word format via either diskette or email. Acceptable performance is that </td> <td>12 Month(s)</td> </tr> </tbody> </table>	Performance Specifications	Delivery Schedule:	General: The outputs of this task are to be produced in accordance with industry standard practices and the following applicable documents: 1.Performance Specification for the NOAA-K, L, M, N&N-prime Satellites: GSFC-S-480-25.1 2.Performance Assurance Requirements for the NOAA-K, L, M, N, N-prime Satellites: GSFC-S-480-26.1 3.Performance Specifications for the NOAA-K, L, M, N, N-prime spacecraft subsystems Technical Oversight Problem Identification: Acceptable performance is that the ATR/POES Project is satisfied that he/she is being kept informed of the status of technical problems, issues, concerns, and possible solutions. Reports and Documents: Technical performance will be based on thoroughness and completeness of written reports. Acceptable performance is that the material reflects the proper level of technical expertise and meets the objectives of the activity. Reports shall use photographs and diagrams as necessary and address objectives, techniques, results, conclusions, and recommendations. Reports shall be delivered to the ATR/POES Project both as a hard copy and in MS Word format via either diskette or email. Acceptable performance is that	12 Month(s)
Performance Specifications	Delivery Schedule:				
General: The outputs of this task are to be produced in accordance with industry standard practices and the following applicable documents: 1.Performance Specification for the NOAA-K, L, M, N&N-prime Satellites: GSFC-S-480-25.1 2.Performance Assurance Requirements for the NOAA-K, L, M, N, N-prime Satellites: GSFC-S-480-26.1 3.Performance Specifications for the NOAA-K, L, M, N, N-prime spacecraft subsystems Technical Oversight Problem Identification: Acceptable performance is that the ATR/POES Project is satisfied that he/she is being kept informed of the status of technical problems, issues, concerns, and possible solutions. Reports and Documents: Technical performance will be based on thoroughness and completeness of written reports. Acceptable performance is that the material reflects the proper level of technical expertise and meets the objectives of the activity. Reports shall use photographs and diagrams as necessary and address objectives, techniques, results, conclusions, and recommendations. Reports shall be delivered to the ATR/POES Project both as a hard copy and in MS Word format via either diskette or email. Acceptable performance is that	12 Month(s)				

the ATR/POES Project is satisfied that the material reflects the proper level of technical expertise and meets the objectives of the activity. If reports are requested by the ATR/POES Project, these shall be delivered via e-mail or deposited electronically into a server folder.

Statement of Work Documents

Comment



METS_TASK Updated_1-24-05.doc

None

Return to List Contract View/Process

Funding Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 51/0
(Technical)

Title: GMSEC FSW Architecture Implementation

Task Period: 02/06/2005 - 10/31/2005

Flight: Non-Flight

Process Stage:
Fully_Awarded

Process Date:
03/04/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost:
\$140,000.00

Current Mod Max. Fee:
\$12,000.00

Current Mod Cost(Mod Est Cost + Mod Max Fee):
\$152,000.00

Total Estimated Cost:
\$140,000.00

Total Maximum Fee:
\$12,000.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$152,000.00

Assistant Technical Representative (ATR) JANE K MARQUART	<input type="checkbox"/> Signature	Date 02/02/2005 03:47 PM	Org Code 582.0	Phone (301)286-7851
Branch Head ELAINE M SHELL	<input checked="" type="checkbox"/> Signature ELAINE M SHELL	Date 02/04/2005 09:53 AM	Org Code 582.0	Phone (301)286-2628
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 02/04/2005 02:55 PM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 03/03/2005 11:43 AM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 03/04/2005 07:01 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 03/04/2005 07:01 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$140,000.00		Work Performed On-Site: All		
Funding Information: 51-470-90-20 (ESAX22005D)		Government Furnished Property/Facilities: Yes		
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: JANE K MARQUART , Code 582.0, Bldg , Room				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element

51-470-90-20

Fiscal Year/Fund

ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Property

Item	Property Type	Property Description
1	Facility	Code 582 Technology Lab

Statement of Work

Item Description	
1 SOW	
Performance Requirements	Delivery Schedule:
See SOW	9 Month(s)
Statement of Work Documents	Comment
 TOMS_SOW_GMSEC_ft_arch.doc	Updated SOW

Return to List
Contract
View/Process

Funding
Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 52/0
(Technical)

Title: JWST Mission Systems Engineering

Task Period: 02/07/2005 - 02/07/2006

Flight: Non-Flight

Process Stage:
Fully_Awarded

Process Date:
02/18/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost:
\$1,106,515.00

Current Mod Max. Fee:
\$90,701.00

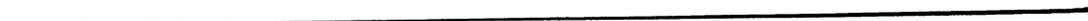
Current Mod Cost(Mod Est Cost + Mod Max Fee):
\$1,197,216.00

Total Estimated Cost:
\$1,106,515.00

Total Maximum Fee:
\$90,701.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$1,197,216.00

Assistant Technical Representative (ATR) MICHAEL T MENZEL	<input type="checkbox"/> Signature	Date 02/01/2005 10:59 AM	Org Code 599.0	Phone (301)286-3808
Branch Head FELICIA HARRISON	<input checked="" type="checkbox"/> Signature FELICIA HARRISON	Date 02/01/2005 11:20 AM	Org Code 443.0	Phone (301)286-0674
Contract Resource Analyst PEIFEN SHAW I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 02/01/2005 12:54 PM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 02/09/2005 01:24 PM	Org Code 599.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature ERIC J NEWMAN	Date 02/16/2005 05:21 PM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/18/2005 07:03 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$800,000.00		Work Performed On-Site: All		
Funding Information: 51-782-06-30(ESAX22005D)		Government Furnished Property/Facilities: Yes		
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: MICHAEL T MENZEL , Code 443.0, Bldg , Room				



Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51-782-06-30

Fiscal Year/Fund
ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Property

Item	Property Type	Property Description
1	Property	Laptop computers

Statement of Work

Item Description				
1 Mission Systems Engineering				
<table border="1"> <thead> <tr> <th>Performance Requirements</th> <th>Delivery Schedule:</th> </tr> </thead> <tbody> <tr> <td>This task is a follow-on to MEDS Task 1184. The work is performed under section 4.3.1 Systems Engineering of the METS task. The task requires a Senior Systems Engineer, A Senior Optics Engineer, A senior quality assurance engineer, a junior systems engineer and a senior efficiency engineer. The task has several deliverables that are called out in the following performance requirements. 1. The contractor shall support coordination of system engineering activities, tools and processes, among the various Government agencies, contractors, and sub-contractors. 2. The contractor shall review project documentation for the Chief Systems Engineer and provide inputs to the CCB process. 3. The contractor shall perform system trade studies to assist in the development of the system architecture. 4. The contractor shall support the development of requirements at all levels of the JWST system. 5. The contractor shall identify, analyze, plan and track system, segment, element and subsystem interfaces in the requirements database. 6. The contractor shall publish minutes of system engineering meetings and track action items. 7. The contractor shall travel to reviews as necessary. 8. The contractor shall support the preparation for major reviews and assist in the response to actions generated from the reviews. 9. The contractor shall generate reports and analysis using the requirements database. 10.</td> <td>12 Month(s)</td> </tr> </tbody> </table>	Performance Requirements	Delivery Schedule:	This task is a follow-on to MEDS Task 1184. The work is performed under section 4.3.1 Systems Engineering of the METS task. The task requires a Senior Systems Engineer, A Senior Optics Engineer, A senior quality assurance engineer, a junior systems engineer and a senior efficiency engineer. The task has several deliverables that are called out in the following performance requirements. 1. The contractor shall support coordination of system engineering activities, tools and processes, among the various Government agencies, contractors, and sub-contractors. 2. The contractor shall review project documentation for the Chief Systems Engineer and provide inputs to the CCB process. 3. The contractor shall perform system trade studies to assist in the development of the system architecture. 4. The contractor shall support the development of requirements at all levels of the JWST system. 5. The contractor shall identify, analyze, plan and track system, segment, element and subsystem interfaces in the requirements database. 6. The contractor shall publish minutes of system engineering meetings and track action items. 7. The contractor shall travel to reviews as necessary. 8. The contractor shall support the preparation for major reviews and assist in the response to actions generated from the reviews. 9. The contractor shall generate reports and analysis using the requirements database. 10.	12 Month(s)
Performance Requirements	Delivery Schedule:			
This task is a follow-on to MEDS Task 1184. The work is performed under section 4.3.1 Systems Engineering of the METS task. The task requires a Senior Systems Engineer, A Senior Optics Engineer, A senior quality assurance engineer, a junior systems engineer and a senior efficiency engineer. The task has several deliverables that are called out in the following performance requirements. 1. The contractor shall support coordination of system engineering activities, tools and processes, among the various Government agencies, contractors, and sub-contractors. 2. The contractor shall review project documentation for the Chief Systems Engineer and provide inputs to the CCB process. 3. The contractor shall perform system trade studies to assist in the development of the system architecture. 4. The contractor shall support the development of requirements at all levels of the JWST system. 5. The contractor shall identify, analyze, plan and track system, segment, element and subsystem interfaces in the requirements database. 6. The contractor shall publish minutes of system engineering meetings and track action items. 7. The contractor shall travel to reviews as necessary. 8. The contractor shall support the preparation for major reviews and assist in the response to actions generated from the reviews. 9. The contractor shall generate reports and analysis using the requirements database. 10.	12 Month(s)			

<p>The contractor shall coordinate and support all users of the requirements database. Deliverables a. Technical Progress Report: due Monthly, 15 of the month b. Attend Technical Meetings: as requested by the ATR c. Trip Report: due 10 days after meeting completion d. Attend/Contribute to the Weekly/ Monthly status meetings e. Provide Presentation Materials for Major Project Reviews (SSRs, SDRs, and PDRs, and CDRs) as requested: due 10 days prior to review. f. Parametric Trade Studies as requested g. Inputs into the development of Requirements at all levels of the JWST system, and TPMs, as requested h. Provide evaluations of major reviews: due 10 days after review completion. i. Analysis as requested by the ATR</p>	
<p>1. The contractor shall perform optical system engineering at the Observatory level. 2. The contractor shall participate in the development and tracking of optical requirements. 3. The contractor shall review project documentation for the Chief Systems Engineer and provide inputs to the CCB process. 4. The contractor shall perform system trade studies to assist in the development of the system architecture. 5. The contractor shall support the development of requirements at all levels of the JWST system. 6. The contractor shall review and coordinate Observatory optical interfaces. 7. The contractor shall perform a review of optical analysis to ensure that all optical requirements are justified and verifiable. 8. The contractor shall review budgets and design parameters affecting optical performance. 9. The contractor shall support optical modeling and wavefront sensing and control. 10. The contractor shall travel to reviews as necessary. 11. The contractor shall support the preparation for major reviews and assist in the response to actions generated from the reviews. 12. The contractor shall review the methodology used to separate non-common path wave front error. Deliverables a. Technical Progress Report: due Monthly, 15 of the month b. Attend Technical Meetings: as requested by the ATR c. Trip Report: due 10 days after meeting completion d. Attend/Contribute to the Weekly/ Monthly status meetings e. Provide Presentation Materials for Major Project Reviews (SSRs, SDRs, and PDRs, and CDRs) as requested: due 10 days prior to review. f. Parametric Trade Studies as requested g. Inputs into the development of Requirements at all levels of the JWST system, and TPMs, as requested h. Provide evaluations of major reviews: due 10 days after review completion. i. Analysis as requested by the ATR</p>	12 Month(s)
<p>1. Propose and implement high technology manufacturing standards. 2. The contractor shall support the development of requirements at all levels of the JWST system. 3. Assist in the preparation of work planning, documentation, verification, and anomaly resolution for hardware assemblies. Deliverables a. Technical Progress Report: due Monthly, 15 of the month b. Attend Technical Meetings: as requested by the ATR c. Trip Report: due 10 days after meeting completion d. Provide Presentation Materials for Major Project Reviews (SSRs, SDRs, and PDRs, and CDRs) as requested: due 10 days prior to review. e. Inputs into the development of Requirements at all levels of the JWST system, and TPMs, as requested f. Provide evaluations of major reviews: due 10 days after review completion.</p>	12 Month(s)
<p>1. The contractor shall review project documentation for the Chief Systems Engineer and provide inputs to the CCB process. 2. The contractor shall perform system trade studies to assist in the development of the system architecture. 3. The contractor shall support the development of requirements at all levels of the JWST system. 4. The contractor shall travel to reviews as necessary. 5. The contractor shall support the preparation for major reviews and assist</p>	12 Month(s)

in the response to actions generated from the reviews. 6. The contractor shall develop a simulation model of the science observing and overhead characteristics at the subsystem level and analyze observation efficiency and overhead for the mission life. 7. The simulation model shall take into account all of the overhead and science observation characteristics and science use cases defined in JWST-RPT-004166, JWST Observing Efficiency Allocations Report, and shall contain the level of detailed defined in the report. 8. The simulation model shall be used to analyze observation efficiency and overhead for the life of the mission for normal operations and contingent scenario for the Monograph 5 use case and the Science Instrument Teams use case. Normal operations are defined as normal science observation plan and spacecraft maintenance activities, including observation plan exception handling (e.g, guide star or target acquisition failure). Contingent scenario is defined as any system component failure or safe mode activities that prevent normal operations from occurring. 9. The model shall be updated periodically to reflect updated information on subsystem overhead and science observation characteristics. Deliverables a. Technical Progress Report: due Monthly, 15 of the month b. Attend Technical Meetings: as requested by the ATR c. Trip Report: due 10 days after meeting completion d. Attend/Contribute to the Weekly/ Monthly status meetings e. Provide Presentation Materials for Major Project Reviews (SSRs, SDRs, and PDRs, and CDRs) as requested: due 5 days prior to review. f. Parametric Trade Studies as requested g. Inputs into the development of Requirements at all levels of the JWST system, and TPMs, as requested h. Provide evaluations of major reviews: due 10 days after review completion. i. Technical report documenting simulation model design and analysis scenarios – due 2 months after task start date. j. Normal operations simulation model and analysis report – due 6 months after review and acceptance of model design report. k. Contingent scenario simulation model and analysis report – due 9 months after review and acceptance of model design report. l. Analysis as requested by the ATR

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Contract
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Funding
Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 53/0
(Technical)

Title: ACS Support for the TDRS Project

Task Period: 04/01/2005 - 09/30/2005

Flight: Non-Flight

Process Stage:
Fully_Awarded

Process Date:
03/21/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost:
\$120,000.00

Current Mod Max. Fee:
\$10,500.00

Current Mod Cost(Mod Est Cost + Mod Max Fee):
\$130,500.00

Total Estimated Cost:
\$120,000.00

Total Maximum Fee:
\$10,500.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$130,500.00

Assistant Technical Representative (ATR) JOHN S GAGOSIAN	<input type="checkbox"/>	Signature	Date 03/17/2005 12:43 PM	Org Code 591.0	Phone (301)286-6392
Branch Head JOHN S GAGOSIAN	<input checked="" type="checkbox"/>	Signature	Date 03/17/2005 12:43 PM	Org Code 591.0	Phone (301)286-6392
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/>	Signature	Date 02/28/2005 07:26 PM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.					
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/>	Signature	Date 03/18/2005 11:52 AM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/>	Signature	Date 03/21/2005 06:41 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/>	Signature	Date 03/21/2005 06:43 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$120,000.00	Work Performed On-Site: All				
Funding Information: 51R-094-40-6428-02(EXCX22005R)	Government Furnished Property/Facilities: No				
Task Background Attached: No					
Contractor will develop specification or statement of work under this task for a future procurement: No					
Deliver To: JOHN S GAGOSIAN , Code 591.0, Bldg , Room					

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51R-094-40-6428-02

Fiscal Year/Fund
EXCX22005R

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Statement of Work

Item Description	
1 ACS Sustaining Engineering	
Performance Requirements Provide ACS Sustaining Engineering in accordance with the attached Statement of Work (SOW).	Delivery Schedule: 6 Month(s)
Statement of Work Documents  2005 SOW-1.doc	Comment Statement of Work for TDRS ACS Engineering

Return to List Contract View/Process

Funding Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 54/0
(Technical)

Title: LRO C&DH Software Design Support

Task Period: 03/14/2005 - 09/30/2005

Flight: Non-Flight

Process Stage:
Fully_Awarded

Process Date:
03/14/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost:
\$999,000.00

Current Mod Max. Fee:
\$78,000.00

Current Mod Cost(Mod Est Cost + Mod Max Fee):
\$1,077,000.00

Total Estimated Cost:
\$999,000.00

Total Maximum Fee:
\$78,000.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$1,077,000.00

Assistant Technical Representative (ATR) MICHAEL D BLAU	<input type="checkbox"/> Signature	Date 02/03/2005 12:10 PM	Org Code 582.0	Phone (301)286-7880
Branch Head ELAINE M SHELL	<input checked="" type="checkbox"/> Signature ELAINE M SHELL	Date 02/04/2005 09:53 AM	Org Code 582.0	Phone (301)286-2628
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 02/04/2005 04:00 PM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 03/11/2005 02:44 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 03/14/2005 07:09 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 03/14/2005 07:15 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$600,000.00	Work Performed On-Site: Partial			
Funding Information: 51-521-10-3B(ESAX22005D)	Government Furnished Property/Facilities: No			
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: MICHAEL D BLAU , Code 580.0, Bldg , Room				



Proposal Instructions

Item Document Type Document Description

- 1 Cost Estimate This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
- 2 Implementation Plan This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal.
- 3 Miscellaneous Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element

51-521-10-3B

Fiscal Year/Fund

ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Statement of Work

Item Description	
1 C&DH Software Lab setup	
Performance Requirements	Delivery Schedule:
Work with the LRO Flight Software Lead Engineer to develop an equipment list for the software development lab. The list should include model numbers, manufacturers, quantities, and cost estimates.	1 Month(s)
Once the equipment list is approved by the ATR, the contractor will purchase the equipment and deliver it to the LRO software development lab.	4 Month(s)
Once the equipment is delivered to GSFC, setup and configure the lab as in the above plan.	5 Month(s)
Produce a C&DH SW lab User's Guide, including normal power-up/configuration procedure(s), normal and emergency power-down procedures. Also include a lab configuration sheet including hardware serial numbers and software version numbers.	6 Month(s)
Item Description	
2 LRO Instrument ICD Review	
Performance Requirements	Delivery Schedule:
Review and comment on the interface control documents (ICDs) between the LRO instruments and the C&DH software. Deliver comments electronically to the ATR and the LRO systems engineering team.	3 Month(s)
Item Description	
3 LRO C&SH SW Preliminary Design	

Performance Requirements	Delivery Schedule:
Work with the LRO Flight Software Lead to develop a preliminary design for the C&DH flight software. Document design decisions in PowerPoint charts/drawings that will be suitable for use in the LRO Software Design Review.	6 Month(s)
Assist the LRO Flight Software Lead in developing the C&DH Software Requirements Document. Deliver completed sections or comments electronically to the task ATR.	4 Month(s)
Participate in the LRO mission-level PDR as a reviewer and/or presenter. Deliver presentation charts, comments, or RFAs electronically to the task ATR.	7 Month(s)
Work with the Common Flight Executive (cFE) development team to finalize build 1 of the cFE and configure it for use as the core of the LRO C&DH flight software.	7 Month(s)

Return to List Contract View/Process

Funding Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 56/0 (Technical)

Title: LRO ACS Analysis, Simulation and Testing

Task Period: 02/01/2005 - 09/30/2005

Flight: Non-Flight

Process Stage: Fully_Awarded

Process Date: 03/08/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost: \$160,000.00

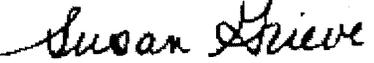
Current Mod Max. Fee: \$14,000.00

Current Mod Cost(Mod Est Cost + Mod Max Fee): \$174,000.00

Total Estimated Cost: \$160,000.00

Total Maximum Fee: \$14,000.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$174,000.00

Assistant Technical Representative (ATR) JOSEPH C GARRICK	<input type="checkbox"/>	Date 02/10/2005 10:12 AM	Org Code 595.0	Phone (301)286-5608
Branch Head THOMAS H STENGLE	<input checked="" type="checkbox"/> Signature THOMAS H STENGLE	Date 02/11/2005 12:03 PM	Org Code 595.0	Phone (301)286-5478
Contract Resource Analyst PEIFEN SHAW I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.	 SUSAN R GRIEVE	Date 02/11/2005 12:11 PM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 03/07/2005 04:31 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 03/08/2005 06:50 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 03/08/2005 07:07 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$160,000.00	Work Performed On-Site: None			
Funding Information: 51-521-10-36(ESAX22005D)	Government Furnished Property/Facilities: No			
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: JOSEPH C GARRICK , Code 595.0, Bldg , Room				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51-521-10-36

Fiscal Year/Fund
ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
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Total Funding \$0.00 \$0.00 \$0.00

Statement of Work

Item Description	
1 LRO Contractor Documents	
Performance Requirements	Delivery Schedule:
Performance requirements located in Documents section in document titled "Performance Specifications". Monthly status reports are due from contractor on 15th of each month.	8 Month(s)
Statement of Work Documents	Comment
 LRO Contractor Statement of Work.doc	Statement of Work
 LRO Contractor Performance Specifications.doc	Performance Specifications
 LRO Milestones and Deliverables.doc	Milestones and Deliverables

Return to List
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Funding
Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 57/0
(Technical)

Title: SE Support for HRSDM Ejection Module

Task Period: 02/25/2005 - 09/30/2005

Flight: Non-Flight

Process Stage:
Fully_Awarded

Process Date:
02/24/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost:
\$120,000.00

Current Mod Max. Fee:
\$10,500.00

Current Mod Cost (Mod Est Cost + Mod Max Fee):
\$130,500.00

Total Estimated Cost:
\$120,000.00

Total Maximum Fee:
\$10,500.00

Task Order Total Cost (Total Est Cost + Total Max Fee): \$130,500.00

Assistant Technical Representative (ATR) DAVID F EVERETT	<input type="checkbox"/> Signature	Date 02/02/2005 09:31 AM	Org Code 599.0	Phone (301)286-1596
Branch Head ERIC K ISAAC	<input checked="" type="checkbox"/> Signature ERIC K ISAAC	Date 02/02/2005 03:09 PM	Org Code 590.0	Phone (301)286-8152
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 02/03/2005 07:42 AM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 02/24/2005 12:02 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/24/2005 12:09 PM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 02/24/2005 12:11 PM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$120,000.00		Work Performed On-Site: All		
Funding Information: 51-458-11-32(ESAX22005D)		Government Furnished Property/Facilities: No		
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: DAVID F EVERETT , Code 442.0 , Bldg 16 , Room 008B				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delet! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51-458-11-32

Fiscal Year/Fund
ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
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Total Funding \$0.00 \$0.00 \$0.00

Statement of Work

Item Description	
1 SOW	
Performance Requirements The contractor shall perform as defined in the attached statement of work.	Delivery Schedule: 240 Day(s)
Statement of Work Documents	Comment
 SOW Feb05.doc	Statement of Work
 Deliverables Feb05.doc	Deliverables List

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[Funding](#) [Create Task Mod](#)

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 58/0
(Technical)

Title: JWST Engineering Review Board

Task Period: 04/25/2005 - 09/30/2005

Flight: Non-Flight

Process Stage:
Fully_Awarded

Process Date:
04/25/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost:
\$165,000.00

Current Mod Max. Fee:
\$14,500.00

Current Mod Cost(Mod Est Cost + Mod Max Fee):
\$179,500.00

Total Estimated Cost:
\$165,000.00

Total Maximum Fee:
\$14,500.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$179,500.00

Assistant Technical Representative (ATR) MICHAEL T MENZEL	<input type="checkbox"/> Signature	Date 02/08/2005 09:59 AM	Org Code 599.0	Phone (301)286-3808
Branch Head ERIC K ISAAC	<input type="checkbox"/> Signature ERIC K ISAAC	Date 02/08/2005 12:50 PM	Org Code 590.0	Phone (301)286-8152
Contract Resource Analyst PEIFEN SHAW I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.	<input type="checkbox"/> Signature PEIFEN SHAW	Date 02/08/2005 02:07 PM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input type="checkbox"/> Signature WALTER T FLOURNOY	Date 04/22/2005 03:32 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 04/25/2005 07:06 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 04/25/2005 07:07 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$155,000.00		Work Performed On-Site: All		
Funding Information: 51-782-06-30(ESAX22005D)		Government Furnished Property/Facilities: Yes		
Task Background Attached: Yes				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: MICHAEL T MENZEL , Code 443.0, Bldg , Room				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element

51-782-06-30

Fiscal Year/Fund

ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Property

Item	Property Type	Property Description
1	Property	Lap Top Computer

Statement of Work

Item Description	
1 Engineering Review Board	
Performance Requirements	Delivery Schedule:
<p>This task is to provide a leader for the James Webb Space Telescope (JWST) Engineering Review Board (ERB). The Engineering Review Board shall serve as a technical review and consulting forum for the JWST Mission Systems Engineering. The primary responsibilities of the ERB Leader shall be: To review the technical results of major system trades and study efforts for completeness and accuracy. The ERB leader shall forward recommendations for resolving issues uncovered to the parties responsible for these efforts and to the Mission Systems Engineer. The ERB leader shall work with the responsible parties to implement these recommendations as required. At the direction of the JWST Program Manager or Mission Systems Engineer, the ERB leader shall lead the independent assessment activities of key technical aspects of the JWST baseline design and process. Among these will be the continuation of the Independent Verification Assessment Team (IVAT). At the discretion of the JWST Program Manager or Mission Systems Engineer shall lead and conduct special studies to consider alternatives for system and segment designs outside the scope of the existing JWST contracts. The ERB leader shall review and contribute to critical interface issues, such as the MIRI dewar accommodation. The ERB leader shall support verification definition activities. The ERB leader shall support requirements audits from element up through system. The ERB leader shall lead/participate appropriate studies needed for SDR as requested. The ERB leader shall consolidate and audit the technical baseline material. Deliverables Provide inputs into the generation of a road map for the SDR, that coordinates the key reviews leading to the SDR by the JWST Spring Quarterly. Provide recommendations for SDR pass/fail criteria at the JWST Spring Quarterly. Provide inputs and review of presentation material as requested two weeks prior to the Systems Definition Review (SDR). Provide detailed evaluation of the SDR 2 weeks after the review. Attend key technical reviews (SDR, PDRs, CDRs, SRRs, etc.) as requested. Monthly Status Report due on the 15th of each month. Travel reports due 10 days after completion of the trip.</p>	7 Month(s)

Task Order Documents



58_Task_Background_2170-0.doc

Comment: Contains METS contract
Paragraph number and type of staff.

Return to List
Contract
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Funding
Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 60/0 (Technical)

Title: James Webb Space Telescope (JWST) GN&C Support

Task Period: 04/01/2005 - 09/30/2005

Flight: Non-Flight

Process Stage: Fully_Awarded

Process Date: 03/08/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost: \$105,000.00

Current Mod Max. Fee: \$9,000.00

Current Mod Cost(Mod Est Cost + Mod Max Fee): \$114,000.00

Total Estimated Cost: \$105,000.00

Total Maximum Fee: \$9,000.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$114,000.00

Assistant Technical Representative (ATR) JOHN S GAGOSIAN	<input type="checkbox"/> Signature	Date 03/07/2005 03:03 PM	Org Code 591.0	Phone (301)286-6392
Branch Head JOHN S GAGOSIAN	<input checked="" type="checkbox"/> Signature JOHN S GAGOSIAN	Date 03/07/2005 03:03 PM	Org Code 591.0	Phone (301)286-6392
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 02/04/2005 07:33 AM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 03/07/2005 04:49 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 03/08/2005 06:51 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 03/08/2005 07:08 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$105,000.00		Work Performed On-Site: All		
Funding Information: 51-782-06-39(ESAX22005D)		Government Furnished Property/Facilities: No		
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: JOHN S GAGOSIAN , Code 591.0, Bldg , Room				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51-782-06-39

Fiscal Year/Fund
ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
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Total Funding \$0.00 \$0.00 \$0.00

Statement of Work

Item Description	
1 GN&C Support	
Performance Requirements	Delivery Schedule:
Maintain insight into ongoing and planned activities of the James Webb Space Telescope (JWST) Prime Contractor related to the JWST Attitude Control Subsystem (ACS). Evaluate the Prime Contractor's efforts in requirements derivation, interface definition, design, simulation, integration, test, verification, and risk management. Document findings in these areas via technical memoranda.	7 Month(s)
Maintain insight into Guidance, Navigation, and Control (GN&C) issues related to Integrated Science Instrument Module (ISIM) design and development. Assist the Lead GN&C Systems Engineer in guiding the requirements derivation, interface definition, design, simulation, integration, test, verification, and risk management processes for the ISIM and its component instruments. Document findings in these areas via technical memoranda.	7 Month(s)
Attend all Project and External technical reviews related to the Observatory ACS. If necessary, help to organize peer reviews within 590 to discuss technical issues. Provide technical opinions and recommendations to the Lead GN&C Systems Engineer on the JWST Project via telecons, face-to-face meetings, and technical memoranda.	7 Month(s)
Provide monthly written reports to the ATR focusing on GN&C design/development progress, technical issues, programmatic issues, and plans for the upcoming month.	7 Month(s)

Return to List
Contract
View/Process
Funding
Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 61/0
(Technical)

Title: ST-5 Operations Modeling

Task Period: 03/14/2005 - 09/30/2006

Flight: Non-Flight

Process Stage:
Fully_Awarded

Process Date:
03/14/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost:
\$129,000.00

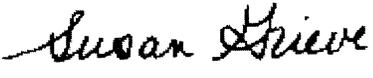
Current Mod Max. Fee:
\$9,000.00

Current Mod Cost (Mod Est Cost + Mod Max Fee):
\$138,000.00

Total Estimated Cost:
\$129,000.00

Total Maximum Fee:
\$9,000.00

Task Order Total Cost (Total Est Cost + Total Max Fee): \$138,000.00

Assistant Technical Representative (ATR) DANIEL J MANDL	<input type="checkbox"/>	Date 02/10/2005 06:21 PM	Org Code 584.0	Phone (301)286-4323
Branch Head DANIEL J MANDL	<input checked="" type="checkbox"/> Signature DANIEL J MANDL	Date 02/10/2005 06:21 PM	Org Code 584.0	Phone (301)286-4323
Contract Resource Analyst PEIFEN SHAW I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.	 SUSAN R GRIEVE	Date 02/11/2005 12:15 PM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 03/10/2005 07:17 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 03/14/2005 07:10 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 03/14/2005 07:22 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$83,000.00		Work Performed On-Site: None		
Funding Information: 51-629-50-40(ESAX22005D)		Government Furnished Property/Facilities: Yes		
Task Background Attached: Yes				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: DANIEL J MANDL , Code 584.0, Bldg , Room				

Proposal Instructions

Item Document Type Document Description

- | | | |
|---|---------------------|--|
| 1 | Cost Estimate | This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order. |
| 2 | Implementation Plan | This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal. |
| 3 | Miscellaneous | Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal. |

Funding

Job Order Number/WBS Element

51-629-50-40

Fiscal Year/Fund

ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Property

Item	Property Type	Property Description
1	Property	PC with MatLab Simulink
2	Property	PC with ASIST SW

Statement of Work

Item Description 1 RF Model	
Performance Requirements Complete RF model to be used in ST-5 Ops with scheduled deliveries of 3/30/05 and 6/1/05	Delivery Schedule: 3 Month(s)
Item Description 2 Power Model	
Performance Requirements Create Power model compatible with GMSEC architecture for ST-5 with deliverables scheduled as follows: 3/25/2005, 6/15/2005 and 7/15/2005	Delivery Schedule: 4 Month(s)
Item Description 3 Sustaining engineering	
Performance Requirements Provide some minimal sustaining engineering as negotiate with the Flight Ops Team for ST-5.	Delivery Schedule: 15 Month(s)

Task Order Documents



61_Task_Background_2183-0.doc

Comment: None

Return to List Contract View/Process

Funding Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 62/0 (Technical)

Title: STEREO Project Software Management and Software Systems Engineering Support

Task Period: 02/21/2005 - 03/31/2006

Flight: Non-Flight

Process Stage: Fully_Awarded

Process Date: 03/08/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost: \$250,000.00

Current Mod Max. Fee: \$22,000.00

Current Mod Cost(Mod Est Cost + Mod Max Fee): \$272,000.00

Total Estimated Cost: \$250,000.00

Total Maximum Fee: \$22,000.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$272,000.00

Assistant Technical Representative (ATR) LILLIAN S REICHENTHAL	<input type="checkbox"/> Signature	Date 02/23/2005 11:33 AM	Org Code 463.0	Phone (301)286-5634
Branch Head NICHOLAS G CHRISSTIMOS	<input checked="" type="checkbox"/> Signature NICHOLAS G CHRISSTIMOS	Date 02/23/2005 02:36 PM	Org Code 460.0	Phone (301)286-5108
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 02/24/2005 01:37 PM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 03/07/2005 05:03 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 03/08/2005 06:52 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 03/08/2005 07:40 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$250,000.00		Work Performed On-Site: None		
Funding Information: 51-883-08-02(ESAX22005D)		Government Furnished Property/Facilities: No		
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: LILLIAN S REICHENTHAL , Code 463.0, Bldg , Room				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element

51-883-08-02

Fiscal Year/Fund

ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Statement of Work

Item Description	
1 STEREO Project Software Management and Software Systems Engineering Support	
Performance Requirements	Delivery Schedule:
Provide STEREO project software management and software systems engineering support. Oversee development of software for the STEREO spacecraft, STEREO missions operations center, spacecraft GSE, flight and ground software for SECCHI, IMPACT, PLASTIC and S/WAVES and software for the STEREO science center. Oversee and coordinate the STEREO software assurance activities to include DCMA support, SAC support, JHU/APL SQA and GSFC code 300 SQA and software IV&V. Support STEREO software delivery, change control, integration and test during observatory I&T. A report stating the activities supported should be submitted on a monthly basis.	13 Month(s)
Statement of Work Documents	Comment
 Task 62 response.doc	None
Item Description	
2 PLASTIC Software Development	
Performance Requirements	Delivery Schedule:
Oversee the PLASTIC flight software development and support flight software testing. Develop and test command and telemetry housekeeping functions. Detail of the support and a status of the development should be submitted in a monthly status report.	3 Month(s)
Item Description	
3 NRL - IV&V	
Performance Requirements	Delivery Schedule:
Complete SECCHI SEB boot loader IV&V. A final report needs to be submitted when this is completed.	4 Month(s)

Return to List
Contract
View/Process

Funding
Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 63/0
(Technical)

Title: Propulsion Support

Task Period: 07/01/2005 - 02/28/2008

Flight: Non-Flight

Process Stage:
Fully_Awarded

Process Date:
04/21/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost:
\$364,000.00

Current Mod Max. Fee:
\$31,000.00

Current Mod Cost(Mod Est Cost + Mod Max Fee):
\$395,000.00

Total Estimated Cost:
\$364,000.00

Total Maximum Fee:
\$31,000.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$395,000.00

Assistant Technical Representative (ATR) SCOTT E GLUBKE	<input checked="" type="checkbox"/> Signature SCOTT E GLUBKE	Date 03/18/2005 06:39 AM	Org Code 597.0	Phone (301)286-6433
Branch Head SCOTT E GLUBKE	<input checked="" type="checkbox"/> Signature SCOTT E GLUBKE	Date 03/18/2005 06:41 AM	Org Code 597.0	Phone (301)286-6433
Contract Resource Analyst PEIFEN SHAW I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 03/18/2005 07:16 AM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 04/19/2005 05:06 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 04/21/2005 03:30 PM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 04/21/2005 03:35 PM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$216,000.00		Work Performed On-Site: All		
Funding Information: 51R-094-40-6428-02(EXCX22005R)		Government Furnished Property/Facilities: No		
Task Background Attached: Yes				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: SCOTT E GLUBKE , Code 597.0, Bldg , Room				

Proposal Instructions

Item Document Type Document Description

- 1 Cost Estimate This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
- 2 Implementation Plan This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal.
- 3 Miscellaneous Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element

51R-094-40-6428-02

Fiscal Year/Fund

EXCX22005R

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Statement of Work

Item Description	
1 SOW	
Performance Requirements	Delivery Schedule:
Provide bi-weekly status of support at branch meetings	2 Week(s)
Statement of Work Documents	Comment
 Prop Support.doc	None

Task Order Documents



63_Task_Background_2189-0.doc

Comment: None

[Return to List](#) [Contract](#) [View/Process](#)
[Funding](#) [Create Task Mod](#)

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 64/0
(Technical)

Title: XTE Flight Software Facility Upgrade

Task Period: 03/15/2005 - 11/10/2005

Flight: Non-Flight

Process Stage:
Fully_Awarded

Process Date:
03/15/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost:
\$25,000.00

Current Mod Max. Fee:
\$2,200.00

Current Mod Cost(Mod Est Cost + Mod Max Fee):
\$27,200.00

Total Estimated Cost:
\$25,000.00

Total Maximum Fee:
\$2,200.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$27,200.00

Assistant Technical Representative (ATR) EDWIN H FUNG	<input type="checkbox"/> Signature	Date 02/16/2005 04:10 PM	Org Code 584.0	Phone (301)286-7347
Branch Head JOHN T DONOHUE	<input checked="" type="checkbox"/> Signature JOHN T DONOHUE	Date 02/16/2005 04:26 PM	Org Code 584.0	Phone (301)286-6149
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 02/17/2005 08:12 AM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 03/03/2005 11:09 AM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 03/15/2005 07:51 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 03/15/2005 07:53 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$25,000.00		Work Performed On-Site: All		
Funding Information: 51-470-90-10(ESAX22005D)		Government Furnished Property/Facilities: Yes		
Task Background Attached: Yes				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: EDWIN H FUNG , Code 584.0, Bldg , Room				

Proposal Instructions

Item Document Type Document Description

- 1 Cost Estimate This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
- 2 Implementation Plan This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal.
- 3 Miscellaneous Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element

51-470-90-10

Fiscal Year/Fund

ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Property

Item	Property Type	Property Description
1	Facility	ASIST Development Lab
2	Property	Computer Systems on the ASIST Development Lab

Statement of Work

Item Description	
1 Upgrade the ground system components of the XTE Flight Software Test Bed.	
Performance Requirements	Delivery Schedule:
The contractor will deliver 2 Intel Pentium-Based PC's running the Linux operating system with the latest version of the ASIST (Advanced Spacecraft Integration and System Test) ground system.	9 Month(s)
The contractor will deliver 1 Intel Pentium-Based PC running the Linux operating system with the latest version of the FEDS (Front End Data System) software for telemetry and command processing.	9 Month(s)
Item Description	
2 XTE Database, Procedures, Pages Conversion	
Performance Requirements	Delivery Schedule:
The contractor will convert the existing XTE Project Databases to make it compatible with the latest version of ASIST/FEDS.	9 Month(s)
The contractor will convert the existing XTE STOL procedures to make it compatible with the latest version of ASIST/FEDS.	9 Month(s)
The contractor will convert the existing XTE display pages to make it compatible with the latest version of ASIST/FEDS.	9 Month(s)

Task Order Documents



64_Task_Background_2190-0.doc

Comment: Updated task docs - Skill set & SOW references defined

Return to List Contract View/Process

Funding Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 65/0 (Technical) **Title:** Micro Shutter Subsystem (MSS) Project Support Engineering

Task Period: 03/14/2005 - 03/14/2007

Flight: Non-Flight

Process Stage: Fully_Awarded

Process Date: 03/15/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost: \$400,000.00

Current Mod Max. Fee: \$35,000.00

Current Mod Cost(Mod Est Cost + Mod Max Fee): \$435,000.00

Total Estimated Cost: \$400,000.00

Total Maximum Fee: \$35,000.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$435,000.00

Assistant Technical Representative (ATR) EDWARD G AMATUCCI	<input type="checkbox"/> Signature	Date 02/24/2005 02:37 PM	Org Code 556.0	Phone (301)286-3924
Branch Head JOHN LEON	<input checked="" type="checkbox"/> Signature JOHN LEON	Date 02/25/2005 12:15 PM	Org Code 556.0	Phone (301)286-5962
Contract Resource Analyst PEIFEN SHAW I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 03/01/2005 07:24 AM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 03/15/2005 09:30 AM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 03/15/2005 10:00 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 03/15/2005 10:01 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$400,000.00		Work Performed On-Site: All		
Funding Information: 51-782-06-59(ESAX22005D)		Government Furnished Property/Facilities: No		
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: EDWARD G AMATUCCI , Code 556.0, Bldg , Room				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51-782-06-59

Fiscal Year/Fund
ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
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Total Funding \$0.00 \$0.00 \$0.00

Statement of Work

Item Description	
1 Statement of Work	
Performance Requirements	Delivery Schedule:
See attached statement of work	24 Month(s)
Statement of Work Documents	Comment
 Task 65_MSS.doc	Word file

[Return to List](#) [Contract](#) [View/Process](#)
[Funding](#) [Create Task Mod](#)

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 68/0 (Technical) **Title:** GLAST Systems Engineering Support - METS

Task Period: 05/25/2005 - 12/31/2007

Flight: Non-Flight

Process Stage: Fully_Awarded

Process Date: 05/25/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost: \$638,000.00

Current Mod Max. Fee: \$55,800.00

Current Mod Cost (Mod Est Cost + Mod Max Fee): \$693,800.00

Total Estimated Cost: \$638,000.00

Total Maximum Fee: \$55,800.00

Task Order Total Cost (Total Est Cost + Total Max Fee): \$693,800.00

Assistant Technical Representative (ATR) NORMAN M RIOUX	<input type="checkbox"/> Signature	Date 03/10/2005 09:45 AM	Org Code 599.0	Phone (301)286-8818
Branch Head MARIA M SO	<input checked="" type="checkbox"/> Signature ERIC K ISAAC	Date 03/15/2005 02:19 PM	Org Code 599.0	Phone (301)286-2371
Contract Resource Analyst PEIFEN SHAW I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 03/15/2005 03:15 PM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 05/20/2005 09:36 AM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 05/24/2005 11:09 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 05/25/2005 02:10 PM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$600,000.00	Work Performed On-Site: All			
Funding Information: 51-848-20-00(ESAX22005D)	Government Furnished Property/Facilities: No			
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: NORMAN M RIOUX , Code 492.0, Bldg , Room				

Proposal Instructions

Item	Document Type	Document Description
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- 1 Cost Estimate This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
- 2 Miscellaneous Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51-848-20-00

Fiscal Year/Fund
ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Statement of Work

Item Description	
1 Operations Systems Engineer	
Performance Requirements	Delivery Schedule:
Provide a systems engineer to support GLAST observatory operations systems engineering.	1036 Day(s)
Statement of Work Documents	Comment
 GLAST FY2005-2006 Task Ops Systems Engineer SOW 2-9-2005.doc	None

Return to List Contract View/Process

Funding Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 69/0 (Technical)

Title: EOS SUSTAINING ENGINEERING AND MISSION OPERATIONS SUPPORT

Task Period: 04/21/2005 - 10/31/2005

Flight: Non-Flight

Process Stage: Fully_Awarded

Process Date: 04/21/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost: \$165,000.00

Current Mod Max. Fee: \$15,000.00

Current Mod Cost(Mod Est Cost + Mod Max Fee): \$180,000.00

Total Estimated Cost: \$165,000.00

Total Maximum Fee: \$15,000.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$180,000.00

Assistant Technical Representative (ATR) ANGELITA C KELLY	<input type="checkbox"/> Signature	Date 03/18/2005 02:25 PM	Org Code 581.0	Phone (301)614-5317
Branch Head PAUL J ONDRUS	<input checked="" type="checkbox"/> Signature PAUL J ONDRUS	Date 03/29/2005 08:37 AM	Org Code 428.0	Phone (301)614-5347
Contract Resource Analyst PEIFEN SHAW I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 03/29/2005 09:04 AM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 04/20/2005 06:14 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 04/21/2005 03:31 PM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 04/21/2005 03:38 PM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$165,000.00		Work Performed On-Site: Partial		
Funding Information: 51-667-66-10 (ESAX22005D)		Government Furnished Property/Facilities: Yes		
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: ANGELITA C KELLY , Code 423.0, Bldg , Room				

Proposal Instructions

Item Document Type Document Description

- | | | |
|---|---------------------|--|
| 1 | Cost Estimate | This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order. |
| 2 | Implementation Plan | This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal. |
| 3 | Miscellaneous | Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal. |

Funding

Job Order Number/WBS Element

51-667-66-10

Fiscal Year/Fund

ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Property

Item	Property Type	Property Description
1	Facility	Access to EOS Operations Center

Statement of Work

Item Description	
1 EOS SUSTAINING ENGINEERING AND MISSION OPERATIONS SUPPORT	
Performance Requirements See attached document.	Delivery Schedule: 12 Month(s)
Statement of Work Documents  OMIS METS Sust Eng,31405,ak.doc	Comment None

Return to List Contract View/Process

Funding Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 70/0 (Technical)

Title: GMSEC Architecture Liaison Support

Task Period: 04/11/2005 - 09/30/2005

Flight: Non-Flight

Process Stage: Fully_Awarded

Process Date: 04/11/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost: \$79,240.00

Current Mod Max. Fee: \$6,899.00

Current Mod Cost(Mod Est Cost + Mod Max Fee): \$86,139.00

Total Estimated Cost: \$79,240.00

Total Maximum Fee: \$6,899.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$86,139.00

Assistant Technical Representative (ATR) DANFORD S SMITH	<input type="checkbox"/> Signature	Date 02/25/2005 04:52 PM	Org Code 581.0	Phone (301)286-2230
Branch Head MARGARET I CAULFIELD	<input checked="" type="checkbox"/> Signature MARGARET I CAULFIELD	Date 03/15/2005 03:26 PM	Org Code 581.0	Phone (301)286-1048
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 03/15/2005 03:44 PM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 04/07/2005 03:50 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 04/11/2005 06:50 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 04/11/2005 07:02 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$85,000.00	Work Performed On-Site: None			
Funding Information: 51-470-90-20 (ESAX22005D)	Government Furnished Property/Facilities: No			
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: DANFORD S SMITH , Code 581.0, Bldg , Room				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Deleete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51-470-90-20

Fiscal Year/Fund
ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Statement of Work

Item Description	
1 Monthly Accomplishment Report	
Performance Requirements	Delivery Schedule:
Provide monthly report describing the missions supported and other activities performed. For each mission, identify the activities performed and the current status of that mission's use or lack of use of the GMSEC system.	1 Month(s)
Statement of Work Documents	Comment
 GMSEC Liaison SOW.doc	Task Statement of Work

[Return to List](#) [Contract](#) [View/Process](#)
[Edit Task Header](#) [Proposal Instructions](#) [Funding](#) [Statement of Work](#) [Cancel Task Order](#)
[Property/GFE](#) [Task Order Docs](#)

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 73/0
(Technical)

Title: IFM Funds Control **Task Period:** 03/14/2005 - 05/31/2006

Flight: Non-Flight

Process Stage:
Initiated

Process Date:
03/10/2005

Status: Awaiting Review

Assistant Technical Representative (ATR) DEBORAH L SHARPE	Date	Org Code 585.0	Phone
Branch Head GRETCHEN A BURTON	Date	Org Code 400.0	Phone (301)286-9442
Contract Resource Analyst PEIFEN SHAW	Date	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.			
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	Date	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	Date	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	Date	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$1,500,000.00	Work Performed On-Site: All		
Funding Information: 51IFMPOPS(ESAX22005D)	Government Furnished Property/Facilities: Yes		
Task Background Attached: Yes			
Contractor will develop specification or statement of work under this task for a future procurement: No			
Deliver To: DEBORAH L SHARPE , Code 405.0, Bldg , Room			

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51IFMPOPS

Fiscal Year/Fund
ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Property

Item	Property Type	Property Description
1	Facility	Aerospace Building 8th Floor
2	Property	ODIN Desktop equipment

Statement of Work

Item Description				
1 Web Developers				
<table border="1"> <thead> <tr> <th>Performance Requirements</th> <th>Delivery Schedule:</th> </tr> </thead> <tbody> <tr> <td>Phase 1 Technical Design Documents: Jun 2005 Allocation versus Actuals Funds Transfer Funds Status Bulletin board/messaging Extract Designs Standards for Web Design Security System Architecture Phase 1 Unit Test Plans Jul 2005 Phase 1 Unit Test Results Aug 2005 Phase 1 Code Aug 2005 Allocation versus Actuals Funds Transfer Funds Status Bulletin board/messaging Phase 1 Usability Testing Results Aug 2005 Phase 1 Stress Testing Results Aug 2005 Phase 1 Test Readiness Review Aug 2005 Phase 1 Support and Sustainment Plan Sep 2005 Phase 1 Training Environment Sep 2005 Phase 1 Operational Readiness Review Oct 2005 Phase 2 Technical Design Documents: Dec 2005 Full Costing in Allocation versus Actuals OCFO Funds Reservation Phase 2 Unit Test Plans Dec 2005 Phase 2 Unit Test Results Feb 2006 Phase 2 Code Feb 2006 Full Costing in Allocation versus Actuals OCFO Funds Reservation Phase 2 Usability Testing Results Feb 2006 Phase 2 Stress Testing Results Feb 2006 Phase 2 Test Readiness Review Jan 2006 Phase 2 Support and Sustainment Plan Mar 2006 Phase 2 Operational Readiness Review Mar 2006 Phase 2 Training Environment Mar 2006</td> <td>14 Month(s)</td> </tr> </tbody> </table>	Performance Requirements	Delivery Schedule:	Phase 1 Technical Design Documents: Jun 2005 Allocation versus Actuals Funds Transfer Funds Status Bulletin board/messaging Extract Designs Standards for Web Design Security System Architecture Phase 1 Unit Test Plans Jul 2005 Phase 1 Unit Test Results Aug 2005 Phase 1 Code Aug 2005 Allocation versus Actuals Funds Transfer Funds Status Bulletin board/messaging Phase 1 Usability Testing Results Aug 2005 Phase 1 Stress Testing Results Aug 2005 Phase 1 Test Readiness Review Aug 2005 Phase 1 Support and Sustainment Plan Sep 2005 Phase 1 Training Environment Sep 2005 Phase 1 Operational Readiness Review Oct 2005 Phase 2 Technical Design Documents: Dec 2005 Full Costing in Allocation versus Actuals OCFO Funds Reservation Phase 2 Unit Test Plans Dec 2005 Phase 2 Unit Test Results Feb 2006 Phase 2 Code Feb 2006 Full Costing in Allocation versus Actuals OCFO Funds Reservation Phase 2 Usability Testing Results Feb 2006 Phase 2 Stress Testing Results Feb 2006 Phase 2 Test Readiness Review Jan 2006 Phase 2 Support and Sustainment Plan Mar 2006 Phase 2 Operational Readiness Review Mar 2006 Phase 2 Training Environment Mar 2006	14 Month(s)
Performance Requirements	Delivery Schedule:			
Phase 1 Technical Design Documents: Jun 2005 Allocation versus Actuals Funds Transfer Funds Status Bulletin board/messaging Extract Designs Standards for Web Design Security System Architecture Phase 1 Unit Test Plans Jul 2005 Phase 1 Unit Test Results Aug 2005 Phase 1 Code Aug 2005 Allocation versus Actuals Funds Transfer Funds Status Bulletin board/messaging Phase 1 Usability Testing Results Aug 2005 Phase 1 Stress Testing Results Aug 2005 Phase 1 Test Readiness Review Aug 2005 Phase 1 Support and Sustainment Plan Sep 2005 Phase 1 Training Environment Sep 2005 Phase 1 Operational Readiness Review Oct 2005 Phase 2 Technical Design Documents: Dec 2005 Full Costing in Allocation versus Actuals OCFO Funds Reservation Phase 2 Unit Test Plans Dec 2005 Phase 2 Unit Test Results Feb 2006 Phase 2 Code Feb 2006 Full Costing in Allocation versus Actuals OCFO Funds Reservation Phase 2 Usability Testing Results Feb 2006 Phase 2 Stress Testing Results Feb 2006 Phase 2 Test Readiness Review Jan 2006 Phase 2 Support and Sustainment Plan Mar 2006 Phase 2 Operational Readiness Review Mar 2006 Phase 2 Training Environment Mar 2006	14 Month(s)			
Item Description				
2 Business Analysts				

Performance Requirements	Delivery Schedule:
1 Functional Design Documents: May – Jun 2005 Allocation versus Actuals Funds Transfer Funds Status Bulletin board/messaging Extract Designs Standards for Web Design Security Phase 1 Critical Design Review Jun 2005 Phase 1 System Integration Test Plan Jul 2005 Phase 1 System Integration Test Scenarios and Scripts Aug 2005 Phase 1 Test Readiness Review Aug 2005 Phase 1 System Integration Test Results Sep 2005 Phase 1 Support and Sustainment Plan Sep 2005 Phase 1 Operational Readiness Review Oct 2005 Phase 2 Functional Design Documents: Nov 2005 Full Costing in Allocation versus Actuals OCFO Funds Reservation Phase 2 Critical Design Review Dec 2005 Phase 2 Usability Testing Results Feb 2006 Phase 2 System Integration Test Plan Jan 2006 Phase 2 System Integration Test Scenarios and Scripts Jan 2006 Phase 2 Test Readiness Review Jan 2006 Phase 2 System Integration Test Results Mar 2006 Phase 2 Support and Sustainment Plan Mar 2006 Phase 2 Operational Readiness Review Mar 2006	15 Month(s)

Task Order Documents



73_Task_Background_2223-0.doc

Comment: None

Return to List Contract View/Process

Funding Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 75/0
(Technical)

Title: Aquarius Project ACS Support

Task Period: 04/11/2005 - 09/30/2005

Flight: Non-Flight

Process Stage:
Fully_Awarded

Process Date:
04/11/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost:
\$29,214.00

Current Mod Max. Fee:
\$2,556.00

Current Mod Cost(Mod Est Cost + Mod Max Fee):
\$31,770.00

Total Estimated Cost:
\$29,214.00

Total Maximum Fee:
\$2,556.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$31,770.00

Assistant Technical Representative (ATR) JOHN S GAGOSIAN	<input type="checkbox"/> Signature	Date 04/05/2005 05:52 PM	Org Code 591.0	Phone (301)286-6392
Branch Head JOHN S GAGOSIAN	<input checked="" type="checkbox"/> Signature JOHN S GAGOSIAN	Date 04/05/2005 05:52 PM	Org Code 591.0	Phone (301)286-6392
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 03/14/2005 07:13 AM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 04/07/2005 03:56 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 04/11/2005 07:01 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 04/11/2005 07:03 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$30,000.00	Work Performed On-Site: All			
Funding Information: 51-296-41-30(SAEX22004D)	Government Furnished Property/Facilities: No			
Task Background Attached: Yes				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: JOHN S GAGOSIAN , Code 591.0, Bldg , Room				

Proposal Instructions

Item	Document Type	Document Description
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1. **Cost Estimate** This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2. **Miscellaneous** Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51-296-41-30

Fiscal Year/Fund
SAEX22004D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Statement of Work

Item Description	
1 ACS Support	
Performance Requirements	Delivery Schedule:
Maintain insight into ongoing and planned activities of the Aquarius Spacecraft Bus Supplier related to the Attitude Control Subsystem (ACS). Evaluate the Bus Supplier's efforts in requirements derivation, interface definition, design, simulation, integration, test, verification, and risk management. Ensure that Export Control (ITAR/EAR) regulations are followed during these evaluations. Document findings in these areas via technical memoranda.	6 Month(s)
Attend all design reviews and technical interface meetings (TIMs) related to the ACS (requires one trip to Argentina during task period). If necessary, help to organize peer reviews within 590 to discuss technical issues. Provide technical opinions and recommendations to the Aquarius Project via telecons, face-to-face meetings, and technical memoranda.	6 Month(s)
Provide monthly written reports to the ATR focusing on ACS design/development progress, technical issues, programmatic issues, and plans for the upcoming month.	6 Month(s)

Task Order Documents



75_Task_Background_2227-0.doc

Comment: Background Data as Requested by COTR

Return to List Contract View/Process

Funding Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 78/0
(Technical)

Title: Ground System Lab Reengineering Support, Code 580

Task Period: 04/01/2005 - 06/12/2005

Flight: Non-Flight

Process Stage:
Fully_Awarded

Process Date:
04/12/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost:
\$10,000.00

Current Mod Max. Fee:
\$875.00

Current Mod Cost(Mod Est Cost + Mod Max Fee):
\$10,875.00

Total Estimated Cost:
\$10,000.00

Total Maximum Fee:
\$875.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$10,875.00

Assistant Technical Representative (ATR) JOHN T DONOHUE	<input type="checkbox"/> Signature	Date 03/11/2005 09:49 AM	Org Code 584.0	Phone (301)286-6149
Branch Head JOHN T DONOHUE	<input checked="" type="checkbox"/> Signature JOHN T DONOHUE	Date 03/11/2005 10:01 AM	Org Code 584.0	Phone (301)286-6149
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 03/11/2005 10:12 AM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 04/11/2005 02:38 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 04/12/2005 07:00 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 04/12/2005 07:07 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$9,000.00		Work Performed On-Site: All		
Funding Information: 51OPERA400(ESAX22005D)		Government Furnished Property/Facilities: No		
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: JOHN T DONOHUE , Code 584.0, Bldg , Room				

Proposal Instructions

Item Document Type Document Description

- | | | |
|---|---------------------|--|
| 1 | Cost Estimate | This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order. |
| 2 | Implementation Plan | This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal. |

- 3 Miscellaneous Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element

51OPERA400

Fiscal Year/Fund

ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Statement of Work

Item Description	
1 Statement of work	
Performance Requirements	Delivery Schedule:
The contractor shall provide technical support to the Real-Time Software engineering lab (Bldg 23, E120). Technical support shall include the following: - Provide assistance in the coordination and planning of the RTSEL engineering lab reengineering effort. This includes developing rough cost estimates, floor plans, network diagrams, schedules, and working with Lab customers to ensure that meet schedule requirements for the reengineering effort. - Resolve schedule and technical issues related to the lab reengineering activity with the Facilities Operations Manager (FOM) and the lab manager (John Donohue, 584, 6-6149). - Support data network reconfigurations, modifications, setup and testing after equipment and lab is reengineered. Reference METS contract element: Function 3, B. Mission Systems Engineering, b. Architecture & Design Development: b1. Defining systems and conducting trade-off studies/design studies for spacecraft, suborbital craft, instruments, space segments and ground segments. Deliverables: Monthly progress/status reports provided to task monitor. In-house estimate (only) of Staffing Level over period of performance: no more than 0.3 FTE Period of Performance: April 1 to June 30, 2005.	90 Day(s)
Item Description	
2 Skill set/Knowledge required from the contractor	
Performance Requirements	Delivery Schedule:
Skill set/Knowledge required from the contractor: Skills: Systems engineering, network configurations and LAN architectures, computer setup and configuration (TDorsey) Knowledge: Microsoft Project, Microsoft Excel, 100-Base-T networks, Network Hubs, network architectures, Windows XP Operating System	90 Day(s)

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[Funding](#) [Create Task Mod](#) [Proposal](#)

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 79/0
(Technical)

Title: SSDO System Engineering Support

Task Period: 04/16/2005 - 03/31/2006

Flight: Non-Flight

Process Stage:
Fully_Awarded

Process Date:
04/12/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost:
\$1,911,319.00

Current Mod Max. Fee:
\$152,000.00

Current Mod Cost(Mod Est Cost + Mod Max Fee):
\$2,063,319.00

Total Estimated Cost:
\$1,911,319.00

Total Maximum Fee:
\$152,000.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$2,063,319.00

Assistant Technical Representative (ATR) THOMAS W WEBER	<input checked="" type="checkbox"/> Signature THOMAS W WEBER	Date 03/21/2005 03:39 PM	Org Code 585.0	Phone (301)286-9739
Branch Head J. STEVE METCALF	<input checked="" type="checkbox"/> Signature J. STEVE METCALF	Date 03/21/2005 04:00 PM	Org Code 423.0	Phone (301)614-5311
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 03/22/2005 05:41 PM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 04/11/2005 10:59 AM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 04/12/2005 07:05 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 04/12/2005 07:07 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$2,000,000.00		Cost Estimate File Attached: No		Work Performed On-Site: Partial
Funding Information: 51-667-12-86(ESAX22005D)		Government Furnished Property/Facilities: No		
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: THOMAS W WEBER , Code 423.0, Bldg , Room				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51-667-12-86

Fiscal Year/Fund
ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Statement of Work

Item Description	
1 SSDO System Engineering	
Performance Requirements	Delivery Schedule:
Found in attached file FY05.SOWsection2-7.doc.	1 Day(s)
Statement of Work Documents	Comment
 FY05 Sowsection2-7.doc	None

Return to List Contract View/Process

Funding Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 83/0
(Technical)

Title: AIM Systems Engineering Support

Task Period: 05/23/2005 - 12/31/2005

Flight: Non-Flight

Process Stage:
Fully_Awarded

Process Date:
05/23/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost:
\$30,000.00

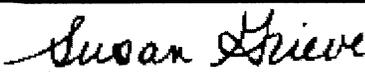
Current Mod Max. Fee:
\$2,625.00

Current Mod Cost(Mod Est Cost + Mod Max Fee):
\$32,625.00

Total Estimated Cost:
\$30,000.00

Total Maximum Fee:
\$2,625.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$32,625.00

Assistant Technical Representative (ATR) DEBORAH J SCHMITT	<input type="checkbox"/>	Date 03/25/2005 04:11 PM	Org Code 410.0	Phone (301)286-4953
Branch Head HERBERT J MITTELMAN	<input checked="" type="checkbox"/> Signature HERBERT J MITTELMAN	Date 04/14/2005 02:13 PM	Org Code 410.0	Phone (301)286-7493
Contract Resource Analyst PEIFEN SHAW	 SUSAN R GRIEVE	Date 04/18/2005 08:21 AM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 05/20/2005 09:54 AM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 05/23/2005 07:20 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 05/23/2005 07:26 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$200,000.00		Work Performed On-Site: Partial		
Funding Information: 51-682-03-10(ESAX22005D)		Government Furnished Property/Facilities: No		
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: CHRISTOPHER SAVINELL , Code 410.0, Bldg , Room				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51-682-03-10

Fiscal Year/Fund
ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
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Total Funding	\$0.00	\$0.00	\$0.00
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Statement of Work

Item Description	
1 SOW	
Performance Requirements	Delivery Schedule:
Monthly Status Report.	1 Month(s)
Statement of Work Documents	Comment
 AIM SOW1.doc	Bob Vernet

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[Funding](#) [Create Task Mod](#)

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 84/0 (Technical)

Title: NIRSspec Instrument Systems Engineering

Task Period: 05/02/2005 - 09/30/2005

Flight: Non-Flight

Process Stage: Fully_Awarded

Process Date: 05/02/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost: \$120,000.00

Current Mod Max. Fee: \$10,500.00

Current Mod Cost(Mod Est Cost + Mod Max Fee): \$130,500.00

Total Estimated Cost: \$120,000.00

Total Maximum Fee: \$10,500.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$130,500.00

Assistant Technical Representative (ATR) SRIDHAR S MANTHRIPRAGADA	<input type="checkbox"/> Signature	Date 04/19/2005 04:08 PM	Org Code 553.0	Phone (301)286-3862
Branch Head JOHN LEON	<input type="checkbox"/> Signature JOHN LEON	Date 04/20/2005 12:38 PM	Org Code 556.0	Phone (301)286-5962
Contract Resource Analyst PEIFEN SHAW I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.	<input type="checkbox"/> Signature PEIFEN SHAW	Date 04/20/2005 12:45 PM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input type="checkbox"/> Signature WALTER T FLOURNOY	Date 05/02/2005 11:34 AM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 05/02/2005 11:41 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 05/02/2005 11:52 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$120,000.00	Work Performed On-Site: All			
Funding Information: 51-782-06-73(SAEX22004D)	Government Furnished Property/Facilities: No			
Task Background Attached: Yes				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: DEBORAH A CLARK , Code 556.0, Bldg , Room				

Proposal Instructions

Item Document Type Document Description

- 1 Cost Estimate This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
- 2 Implementation Plan This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal.
- 3 Miscellaneous Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element

51-782-06-73

Fiscal Year/Fund

SAEX22004D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Statement of Work

Item Description	
1 Statement of Work 2	
Performance Requirements See Task84 Statement of Work5.doc for deliverables	Delivery Schedule: 6 Month(s)
Statement of Work Documents	Comment
 Task84 Statement of Work4.doc	None
 Task 84 Background.doc	None
 Task84 Statement of Work5.doc	None

Task Order Documents



84_Task_Background_2252-0.doc

Comment: None

Return to List Contract View/Process

Funding Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 87/0 (Technical)

Title: MMS Support

Task Period: 05/24/2005 - 04/15/2007

Flight: Non-Flight

Process Stage: Fully_Awarded

Process Date: 05/24/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost: \$446,500.00

Current Mod Max. Fee: \$39,000.00

Current Mod Cost(Mod Est Cost + Mod Max Fee): \$485,500.00

Total Estimated Cost: \$446,500.00

Total Maximum Fee: \$39,000.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$485,500.00

Assistant Technical Representative (ATR) MIRIAM D WENNERSTEN	<input type="checkbox"/> Signature	Date 05/02/2005 10:54 AM	Org Code 596.0	Phone (301)286-3711
Branch Head CHARLES E CLAGETT	<input checked="" type="checkbox"/> Signature CHARLES E CLAGETT	Date 05/02/2005 04:29 PM	Org Code 596.0	Phone (301)286-2438
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 05/03/2005 07:30 AM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 05/20/2005 09:44 AM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 05/24/2005 09:07 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 05/24/2005 09:16 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$500,000.00	Work Performed On-Site: Partial			
Funding Information: 51-784-13-38(SAEX22004D)	Government Furnished Property/Facilities: No			
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: MIRIAM D WENNERSTEN , Code 596.0, Bldg , Room				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delete! This category is for the vendors use. It is the vendors only

avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51-784-13-38

Fiscal Year/Fund
SAEX22004D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Statement of Work

Item Description 1 Software Development	
Performance Requirements	Delivery Schedule:
General software support in the development of GPS and communications software for the MMS interspacecraft ranging system. This shall include code development, testing, and documentation of the software. The deliverable for this item is a monthly progress report.	24 Month(s)
Item Description 2 Parts Procurement Support	
Performance Requirements	Delivery Schedule:
Support for the procurement of non-flight electronic parts for the MMS project.	24 Month(s)
Item Description 3 Electronic layout and fabrication	
Performance Requirements	Delivery Schedule:
Electronic board layout and fabrication of non-flight electronic assemblies as necessary in the development of GPS and transceiver for the MMS intersatellite ranging system. The deliverable for this item is artwork drawings and printed wiring boards delivered 4 weeks after ATR approval.	24 Month(s)
Item Description 4 Configuration management	
Performance Requirements	Delivery Schedule:
Support configuration management of drawings and documents generated in this task. The deliverable for this item is a monthly progress report.	24 Month(s)
Item Description 5 Electro-mechanical design, fabrication, and assembly	
Performance Requirements	Delivery Schedule:
General engineering, drafting, and technician support for developing GPS and transceiver capabilities for the MMS project. The deliverable	24 Month(s)

for this item is a monthly progress report.	
Item Description	
6 Additional Information	
Performance Requirements	Delivery Schedule:
See attached document	24 Month(s)
Statement of Work Documents	Comment
 MMS Support Task.doc	None

Return to List Contract View/Process

Funding Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 88/0 (Technical)

Title: Technology Transfer Program

Task Period: 04/29/2005 - 04/28/2008

Flight: Non-Flight

Process Stage: Fully_Awarded

Process Date: 05/02/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost: \$800,000.00

Current Mod Max. Fee: \$70,000.00

Current Mod Cost(Mod Est Cost + Mod Max Fee): \$870,000.00

Total Estimated Cost: \$800,000.00

Total Maximum Fee: \$70,000.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$870,000.00

Assistant Technical Representative (ATR) NONA K CHEEKS	<input type="checkbox"/> Signature	Date 04/11/2005 04:45 PM	Org Code 504.0	Phone (301)286-5810
Branch Head MICHAEL G RYSCHKEWITSCH MICHAEL G RYSCHKEWITSCH	<input checked="" type="checkbox"/> Signature	Date 04/22/2005 03:40 PM	Org Code 500.0	Phone (301)286-6218
Contract Resource Analyst PEIFEN SHAW I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 04/25/2005 07:47 AM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature	Date 04/29/2005 11:34 AM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature	Date 05/02/2005 10:09 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature	Date 05/02/2005 10:11 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$800,000.00		Work Performed On-Site: All		
Funding Information: 51-252-02-01(SFCX22004D)		Government Furnished Property/Facilities: Yes		
Task Background Attached: Yes				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: NONA K CHEEKS , Code 504.0, Bldg , Room				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element**Fiscal Year/Fund**

51-252-02-01

SFCX22004D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Property

Item	Property Type	Property Description
1	Property	On-site office equipment including computers.

Statement of Work

Item Description	
1 Technology Transfer Support	
Performance Requirements	Delivery Schedule:
SGT Statement of Work For Technology Transfer Support The contractor shall perform the following support roles pertaining to GSFC Office of Technology Transfer (OTT): -Evaluate GSFC Scientific and technology papers and presentations for GSFC technology transfer leads -Participate in engineering and technical reviews relative to technology transfer matters -Assist in developing and maintaining software release controls for OTT -Receive and prepare docket file for new technologies disclosed to the GSFC OTT - Prepare monthly new technology disclosure reports -Maintain OTT new technology disclosure electronic and paper files -Prepare NASA tech brief material to be submitted to NASA Tech Briefs. -Coordinate tech brief and other technical article reviews with OTT management and staff and GSFC researchers -Assist in planning and coordinating logistics for technology transfer meetings, conferences, and trade shows -Disseminate information (i.e. publications and brochures) pertaining to NASA Technology Transfer Program -Maintain office equipment and exhibit inventory. Prepare quarterly reports pertaining to conference equipment, mementoes and publications -Coordinate the development of technology prospectus, success stories, press releases and current event write-ups -Attend and participate in Agency and industry technology transfer briefings -Research GSFC technology focus and develop potential plans for targeted technology transfer activities -Develop and maintain marketing and outreach calendar for the Office -Identify innovative marketing and outreach practices to promote the GSFC Technology Transfer Program - Coordinate GSFC's role in Agency technology transfer marketing meetings and activities -Participate in GSFC OTT Training initiatives - Provide technical support of electronic media requirements related to OTT electronic commerce initiatives -GSFC OTT NASA Technology Transfer Tracking System Administrator These activities are recurring and based on GSFC's monthly technology reviews; conferences and meetings that are in accordance with the NASA and GSFC OTT marketing and outreach opportunities; receipt of NASA commercialization periodicals, publications, and reports; public and private sector inquiries, and general office technology business and engineering management requirements.	36 Month(s)

Task Order Documents



88_Task_Background_2279-0.doc

Comment: None

Return to List
Contract
View/Process
Funding
Create Task Mod

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 89/0 (Technical)

Title: POES Project ACS Support

Task Period: 06/01/2005 - 05/31/2006

Flight: Non-Flight

Process Stage: Fully_Awarded

Process Date: 05/04/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost: \$200,000.00

Current Mod Max. Fee: \$17,500.00

Current Mod Cost(Mod Est Cost + Mod Max Fee): \$217,500.00

Total Estimated Cost: \$200,000.00

Total Maximum Fee: \$17,500.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$217,500.00

Assistant Technical Representative (ATR) JOHN S GAGOSIAN	<input type="checkbox"/>	Date 05/02/2005 02:12 PM	Org Code 591.0	Phone (301)286-6392
Branch Head JOHN S GAGOSIAN	<input checked="" type="checkbox"/> Signature JOHN S GAGOSIAN	Date 05/02/2005 02:12 PM	Org Code 591.0	Phone (301)286-6392
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 04/20/2005 12:51 PM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 05/04/2005 11:46 AM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 05/04/2005 01:35 PM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 05/04/2005 01:36 PM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$200,000.00		Work Performed On-Site: All		
Funding Information: 51R61556749701(ESAX22005R)		Government Furnished Property/Facilities: No		
Task Background Attached: Yes				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: JOHN S GAGOSIAN , Code 591.0, Bldg , Room				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51R61556749701

Fiscal Year/Fund
ESAX22005R

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
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Total Funding \$0.00 \$0.00 \$0.00

Statement of Work

Item Description	
1 ACS Support	
Performance Requirements	Delivery Schedule:
Maintain insight into ongoing and planned activities related to the Attitude Control Subsystem (ACS) of the NOAA-N and N-Prime spacecraft. Evaluate the contractor's efforts in requirements derivation, interface definition, design, simulation, integration, test, verification, operations, and risk management. Document findings in these areas via technical memoranda.	12 Month(s)
Attend peer reviews, external reviews, and technical interface meetings (TIMs) related to the ACS. Witness critical verification tests and spacecraft operations. If necessary, help to organize peer reviews within 590 to discuss technical issues. Provide technical opinions and recommendations to the POES Project via telecons, face-to-face meetings, and technical memoranda.	12 Month(s)
Provide monthly written reports to the ATR focusing on ACS design/development progress, technical issues, programmatic issues, and plans for the upcoming month.	12 Month(s)

Task Order Documents



89_Task_Background_2281-0.doc

Comment: Background data needed by
COTR

Return to List	Contract	View/Process
Edit Task Header	Proposal Instructions	Funding
Property/GFE	Task Order Docs	Statement of Work
		Cancel Task Order
		Proposal

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 90/0
(Technical)

Title: LISA System Engineering

Task Period: 04/26/2005 - 09/30/2006

Flight: Non-Flight

Process Stage:
ATR_Proposal_Review

Process Date:
05/26/2005

Status: Awaiting Review

Assistant Technical Representative (ATR) COLLEEN A MCGRAW	<input type="checkbox"/> Signature	Date 05/11/2005 09:54 AM	Org Code 599.0	Phone (301)286-9941
Branch Head MARIA M SO	<input checked="" type="checkbox"/> Signature MARIA M SO	Date 05/13/2005 10:28 AM	Org Code 599.0	Phone (301)286-2371
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 05/13/2005 10:44 AM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 05/16/2005 11:10 AM	Org Code 599.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 05/18/2005 06:56 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 05/18/2005 06:58 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$325,000.00	Work Performed On-Site: All			
Funding Information: 517853021(ESAX22005D)	Government Furnished Property/Facilities: No			
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: MARIA M SO , Code 599.0, Bldg , Room				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
517853021

Fiscal Year/Fund
ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Statement of Work

Item Description
1 Mission Architecture & Requirments

Performance Requirements	Delivery Schedule:
Look in the document	18 Month(s)
Statement of Work Documents	Comment
 SOW_LISA_SE-SGT.doc	None

TED

Return to List	Contract	View/Process
Edit Task Header	Proposal Instructions	Funding
Property/GFE	Task Order Docs	Statement of Work
		Cancel Task Order
		Proposal

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 92/0 **Title:** SNE Software Engineering Support

Task Period: 05/09/2005 - 08/05/2007

Flight: Non-Flight

Process Stage: COTR_Proposal_Review

Process Date: 05/26/2005

Status: Awaiting Review

Assistant Technical Representative (ATR) DONALD E JAMISON	<input type="checkbox"/> Signature	Date 05/10/2005 02:56 PM	Org Code 581.0	Phone (301)286-2598
Branch Head THOMAS A GITLIN	<input checked="" type="checkbox"/> Signature THOMAS A GITLIN	Date 05/10/2005 03:41 PM	Org Code 450.0	Phone (301)286-6135
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 05/10/2005 03:56 PM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 05/11/2005 11:50 AM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 05/11/2005 12:34 PM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 05/11/2005 12:36 PM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$187,779.00	Work Performed On-Site: None			
Funding Information: 51R-041-97-7392-01(EXCX22005R)	Government Furnished Property/Facilities: No			
Task Background Attached: Yes				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: DONALD E JAMISON , Code 581.0, Bldg , Room				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delete! This category is for the vendors use. It is the vendors only

avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element

51R-041-97-7392-01

Fiscal Year/Fund

EXCX22005R

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Statement of Work

Item Description	
1 Statement of Work see attached	
Performance Requirements see attached	Delivery Schedule: 28 Month(s)

Task Order Documents



92_Task_Background_2314-0.doc

Comment: None

Return to List
Contract
View/Process
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Proposal Instructions
Funding
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Cancel Task Order
Property/GFE
Task Order Docs

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 95/0 (Technical)

Title: Exploration Initiative Cross Center Lab Demonstration

Task Period: 05/31/2005 - 09/30/2006

Flight: Non-Flight

Process Stage: Initiated

Process Date: 05/26/2005

Status: Awaiting Review

Assistant Technical Representative (ATR) JOHN O BRISTOW	Date	Org Code 583.0	Phone (301)286-3647
Branch Head HENRY L MURRAY	Date	Org Code 583.0	Phone (301)286-6347
Contract Resource Analyst PEIFEN SHAW	Date	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.			
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	Date	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	Date	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	Date	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$170,000.00		Work Performed On-Site: Partial	
Funding Information: 51617030801(EXCX22005D)		Government Furnished Property/Facilities: No	
Task Background Attached: No			
Contractor will develop specification or statement of work under this task for a future procurement: No			
Deliver To: JOHN O BRISTOW , Code 583.0, Bldg , Room			

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51617030801

Fiscal Year/Fund
EXCX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Statement of Work

Item Description	
1 Constellation of Lab Demonstration	
Performance Requirements	Delivery Schedule:
Support the prototyping and connection of multiple labs at multiple centers to create a Constellation of Labs. This work is to demonstrate key technologies needed to support the Exploration Initiative. In particular, labs at GSFC, JSC, KSC, JPL and MSFC will be connected using middleware technologies. The labs will then demonstrate sharing of data from multiple missions run by multiple centers.	4 Month(s)
Item Description	
2 MMS Flight Dynamics Constellation Support	
Performance Requirements	Delivery Schedule:
Demonstrate flight dynamics support for MMS in the GMSEC lab. At least two demonstrations should be done using typical GSFC flight dynamics tools including FreeFlyer, AutoFDS and autoProducts.	16 Month(s)

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Task Order Docs

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 96/0
(Technical)

Title: ST5 xFDS Support

Task Period: 05/25/2005 - 07/31/2005

Flight: Non-Flight

Process Stage:
Branch_Review

Process Date:
05/24/2005

Status: Awaiting Review

Assistant Technical Representative (ATR) MARK A WOODARD	Date 05/24/2005 05:29 PM	Org Code 595.0	Phone (301)286-9611
Branch Head THOMAS H STENGLE	Date	Org Code 595.0	Phone (301)286-5478
Contract Resource Analyst PEIFEN SHAW I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.	Date	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	Date	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	Date	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	Date	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$40,000.00	Work Performed On-Site: Partial		
Funding Information: 516295033(2005)	Government Furnished Property/Facilities: No		
Task Background Attached: No			
Contractor will develop specification or statement of work under this task for a future procurement: No			
Deliver To: MARK A WOODARD , Code 595.0, Bldg , Room			

Proposal Instructions

Item Document Type Document Description

- 1 Cost Estimate This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
- 2 Implementation Plan This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal.
- 3 Miscellaneous Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element

516295033

Fiscal Year/Fund

2005

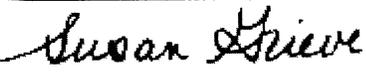
Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Statement of Work

Item Description	
1 Statement of Work	
Performance Requirements	Delivery Schedule:
Bi-weekly status reports.	68 Day(s)
Statement of Work Documents	Comment
 ST5_SOW_5_19_05.doc	Statement of Work

[Return to List](#) [Contract](#) [View/Process](#)
[Funding](#) [Create Task Mod](#) [Proposal](#)

Contract: Multidisciplinary Engineering and Technical Services (METS) **Contract Num:** NNG05CA99C **Period:** 02/05/2005 - 02/04/2010
Task Num/Mod Num: 99/0 (Technical) **Title:** I&T Support for the Laser Subsystem of the LOLA **Task Period:** 06/29/2005 - 06/14/2006
Flight: Non-Flight **Process Stage:** Fully_Awarded **Process Date:** 06/29/2005 **Awarded To:** SGT Inc.
Current Mod. Est. Cost: \$14,902.00 **Current Mod Max. Fee:** \$1,304.00 **Current Mod Cost(Mod Est Cost + Mod Max Fee):** \$16,206.00
Total Estimated Cost: \$14,902.00 **Total Maximum Fee:** \$1,304.00 **Task Order Total Cost(Total Est Cost + Total Max Fee):** \$16,206.00

Assistant Technical Representative (ATR) DANNY J KREBS <input checked="" type="checkbox"/> Signature DANNY J KREBS	Date 06/10/2005 01:50 PM	Org Code 554.0	Phone (301)286-3863
Branch Head PAMELA S MILLAR <input checked="" type="checkbox"/> Signature PAMELA S MILLAR	Date 06/17/2005 11:30 AM	Org Code 694.0	Phone (301)614-6730
Contract Resource Analyst PEIFEN SHAW  SUSAN R GRIEVE I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.	Date 06/17/2005 12:57 PM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY <input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 06/28/2005 04:23 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY <input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 06/29/2005 07:11 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY <input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 06/29/2005 07:16 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$15,000.00 Cost Estimate File Attached: No		Work Performed On-Site: All	
Funding Information: 51-521-10-0A(ESAX22005D)		Government Furnished Property/Facilities: Yes	
Task Background Attached: No			
Contractor will develop specification or statement of work under this task for a future procurement: No			
Deliver To: SUZETTE L KEMPLER , Code 690.5, Bldg , Room			

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51-521-10-0A

Fiscal Year/Fund
ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Property

Item	Property Type	Property Description
1	Property	Computer & Printer

Statement of Work

Item Description	
1 SOW	
Performance Requirements	Delivery Schedule:
See SOW for Performance Requirement	12 Month(s)
Statement of Work Documents	Comment
 Statement_of_Work_for_landT.doc	None

Return to List
Contract
View/Process
Funding
Create Task Mod
Proposal

Contract: Multidisciplinary Engineering and Technical Services (METS)
Contract Num: NNG05CA99C
Period: 02/05/2005 - 02/04/2010
Task Num/Mod Num: 103/0 (Technical)
Title: Laser Optics Test Support for LOLA Laser
Task Period: 06/27/2005 - 12/31/2005
Flight: Non-Flight
Process Stage: Fully_Awarded
Process Date: 06/27/2005
Awarded To: SGT Inc.
Current Mod. Est. Cost: \$47,536.00
Current Mod Max. Fee: \$5,977.00
Current Mod Cost(Mod Est Cost + Mod Max Fee): \$53,513.00
Total Estimated Cost: \$47,536.00
Total Maximum Fee: \$5,977.00
Task Order Total Cost(Total Est Cost + Total Max Fee): \$53,513.00

Assistant Technical Representative (ATR) DANNY J KREBS <div style="text-align: center;"> <input checked="" type="checkbox"/> Signature DANNY J KREBS </div>	Date 06/10/2005 01:51 PM	Org Code 554.0	Phone (301)286-3863
Branch Head PAMELA S MILLAR <div style="text-align: center;"> <input checked="" type="checkbox"/> Signature PAMELA S MILLAR </div>	Date 06/17/2005 11:31 AM	Org Code 694.0	Phone (301)614-6730
Contract Resource Analyst PEIFEN SHAW <div style="text-align: center;"> SUSAN R GRIEVE </div> I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.	Date 06/17/2005 12:59 PM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY <div style="text-align: center;"> <input checked="" type="checkbox"/> Signature WALTER T FLOURNOY </div>	Date 06/24/2005 02:27 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY <div style="text-align: center;"> <input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY </div>	Date 06/27/2005 07:54 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY <div style="text-align: center;"> <input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY </div>	Date 06/27/2005 07:56 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$15,000.00 Cost Estimate File Attached: No		Work Performed On-Site: All	
Funding Information: 51-521-10-0A(ESAX22005D)		Government Furnished Property/Facilities: Yes	
Task Background Attached: No			
Contractor will develop specification or statement of work under this task for a future procurement: No			
Deliver To: SUZETTE L KEMPLER , Code 690.5, Bldg , Room			

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51-521-10-0A

Fiscal Year/Fund
ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Property

Item	Property Type	Property Description
1	Property	computer and printer

Statement of Work

Item Description	
1 Statement of Work	
Performance Requirements	Delivery Schedule:
See SOW for Performance Requirement	6 Month(s)
Statement of Work Documents	Comment
 Statement of Work for Optics Test.doc	None

Return to List	Contract	View/Process
Edit Task Header	Proposal Instructions	Funding
Property/GFE	Task Order Docs	Statement of Work
		Proposal
		Cancel Task Order

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 104/0 (Technical)

Title: Senior System Engineer

Task Period: 07/03/2005 - 05/15/2006

Flight: Non-Flight

Process Stage: CSp_Proposal_Review

Process Date: 08/04/2005

Status: Awaiting Review

Assistant Technical Representative (ATR) MARK M JAROSZ	<input checked="" type="checkbox"/> Signature MARK M JAROSZ	Date 07/06/2005 03:54 PM	Org Code 463.0	Phone (301)286-8084
Branch Head MARK M JAROSZ	<input checked="" type="checkbox"/> Signature MARK M JAROSZ	Date 07/06/2005 03:55 PM	Org Code 463.0	Phone (301)286-8084
Contract Resource Analyst PEIFEN SHAW <i>Susan Grieve</i> SUSAN R GRIEVE		Date 07/07/2005 07:57 AM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 08/04/2005 05:23 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature MAYRA A NIEVES-TORRES	Date 07/08/2005 01:45 PM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 07/11/2005 10:10 PM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$200,000.00 Cost Estimate File Attached: No		Work Performed On-Site: All		
Funding Information: 518830804(2005)		Government Furnished Property/Facilities: Yes		
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: MARK M JAROSZ , Code 463.0, Bldg , Room				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.



Funding

Job Order Number/WBS Element

518830804

Fiscal Year/Fund

2005

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			



Property

Item	Property Type	Property Description
1	Property	Desktop Computer



Statement of Work

Item Description		
1 STEREO Senior System Engineer SOW		
Performance Requirements	Delivery Schedule:	
Provide a monthly written Systems Engineering Status Report detailing all accomplishments, major hardware or software events, issues and concerns.	30 Day(s)	
Statement of Work Documents	Comment	
SOW_STEREO_Sr_Systems_Engr.doc	None	
Journal Entry	Entered By	Entry Date
Government desktop computer is only GFE. Travel will be minimal to support reviews and technical meetings. Average of 1 trip per month would be reasonable except during launch campaign. January 2006 thru April 2006 would include significantly more travel on the order of 1-3 weeks/month. There are no additional	ATR	07/06/2005 02:44 PM

specifications, requirements documents etc.		
 Could not open the METS contract, but looks like the reference is to Section 4.3.1 Systems Engineering.	ATR	07/06/2005 03:53 PM



Process Task Order	<input type="button" value="Approve"/>	<input type="button" value="Disapprove"/>
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Return to List	Contract	View/Process
Edit Task Header	Proposal Instructions	Funding
Property/GFE	Task Order Docs	Statement of Work
		Cancel Task Order
		Proposal

Contract: Multidisciplinary Engineering and Technical Services (METS) **Contract Num:** NNG05CA99C **Period:** 02/05/2005 - 02/04/2010

Task Num/Mod Num: 105/0 (Technical) **Title:** System Engineering Support for Matrixed Employee Handbook **Task Period:** 07/15/2005 - 09/15/2005

Flight: Non-Flight **Process Stage:** CSp_Proposal_Review **Process Date:** 07/26/2005 **Status:** Awaiting Review

Assistant Technical Representative (ATR) JOHN T DONOHUE	<input checked="" type="checkbox"/> Signature JOHN T DONOHUE	Date 07/11/2005 07:15 AM	Org Code 584.0	Phone (301)286-6149
Branch Head JOHN T DONOHUE	<input checked="" type="checkbox"/> Signature JOHN T DONOHUE	Date 07/11/2005 07:15 AM	Org Code 584.0	Phone (301)286-6149
Contract Resource Analyst PEIFEN SHAW I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 07/13/2005 07:53 PM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 07/26/2005 04:22 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 07/14/2005 09:58 PM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 07/14/2005 09:59 PM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$30,000.00 Cost Estimate File Attached: No		Work Performed On-Site: All		
Funding Information: 51OPERA400(SAEX22004R)		Government Furnished Property/Facilities: No		
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: JOHN T DONOHUE , Code 584.0, Bldg , Room				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.

- 2 Miscellaneous Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.



Funding

Job Order Number/WBS Element
51OPERA400

Fiscal Year/Fund
SAEX22004R

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			



Statement of Work

Item Description	
1 SOW	
Performance Requirements	Delivery Schedule:
Participation at meetings (present/not present) Contract deliverables provided on schedule	3 Month(s)
Statement of Work Documents	Comment
Statement of Work for Code 400 Contractor Support.doc	SOW



Process Task Order

Approve

Disapprove

Return to List	Contract	View/Process
Edit Task Header	Proposal Instructions	Funding
Property/GFE	Task Order Docs	Statement of Work
		Cancel Task Order
		Proposal

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 108/0 (Technical)

Title: LRO GNC Support

Task Period: 07/20/2005 - 09/30/2006

Flight: Non-Flight

Process Stage: CSp_Proposal_Review

Process Date: 09/16/2005

Status: Awaiting Review

Assistant Technical Representative (ATR) JAMES E SIMPSON	<input type="checkbox"/> Signature JAMES E SIMPSON	Date 08/19/2005 02:55 PM	Org Code 596.0	Phone (301)286-1139
Branch Head CHARLES E CLAGETT	<input type="checkbox"/> Signature CHARLES E CLAGETT	Date 08/19/2005 03:25 PM	Org Code 596.0	Phone (301)286-2438
Contract Resource Analyst PEIFEN SHAW	<input type="checkbox"/> Signature PEIFEN SHAW	Date 08/22/2005 09:12 AM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input type="checkbox"/> Signature WALTER T FLOURNOY	Date 09/16/2005 02:39 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 08/25/2005 10:56 PM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 08/25/2005 10:59 PM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$125,000.00 Cost Estimate File Attached: No		Work Performed On-Site: All		
Funding Information: 51-521-10-36(ESAX22005D)		Government Furnished Property/Facilities: Yes		
Task Background Attached: Yes				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: JAMES E SIMPSON , Code 596.0, Bldg , Room				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor

hours and costs to perform the order.

- 2 Miscellaneous Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.



Funding

Job Order Number/WBS Element

51-521-10-36

Fiscal Year/Fund

ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			



Property

Item	Property Type	Property Description
1	Property	Desktop Computer



Statement of Work

Item Description	
1 LRO GNC GSE & LRO RW FPGA SOW for Task 108	
Performance Requirements	Delivery Schedule:
The LRO GNC GSE task will be used to produce a requirements document to support GNC box level, FlatSat, and Integration & Testing performance and functional tests.	3 Month(s)
Train and support a Code 596 civil servant in implementing the Global Precipitation Measurement (GPM) RW firmware into the LRO in-house RW design.	14 Month(s)



Task Order Documents



108_Task_Background_2404-0.doc

Comment: None



Process Task Order

Approve

Disapprove

Get Original or Mod

Print Screen

Close Window

To view the original Task Order click "Get Original or Mod" button while "0" appears in the drop down box. To view any of the Task Modifications, click "Get Original or Mod" with the desired mod number selected in the drop down box.

View SOW History

Clicking this "View SOW History" button will display a listing of all Statement of Work Items with all of the associated Performance Specifications, Documents and Journal Entries from the original task as well as any task modifications that exist in the system.

Task Num/Mod Num: 109/0
(Technical)

Title: GLORY Systems Engineering

Task Period: 08/15/2005 - 02/15/2006

Flight: Non-Flight

Process Stage: Fully_Awarded Status Date: 09/06/2005

Awarded To: SGT Inc.

Current Mod. Est. Cost: \$168,299.00

Current Mod Max. Fee: \$14,551.00

Current Mod Cost(Mod Est Cost + Mod Max Fee): \$182,850.00

Total Est. Cost: \$168,299.00

Total Maximum Fee: \$14,551.00

Task Order Total Cost(Total Est Cost + Total Max Fee): \$182,850.00

Assistant Technical Representative (ATR)	<input checked="" type="checkbox"/> Signature CAREY F LIVELY	Date 08/15/2005 12:01 PM	Org Code 599.0	Phone (301)286-8983
Branch Head	<input checked="" type="checkbox"/> Signature TIMOTHY L DUNFEE	Date 08/15/2005 01:36 PM	Org Code 420.2	Phone (301)286-2568
Contract Resource Analyst I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 08/15/2005 02:59 PM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR)	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 09/02/2005 10:19 AM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp)	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 09/06/2005 10:02 AM	Org Code 210.M	Phone (301)286-4240
Contracting Officer (CO)	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 09/06/2005 10:29 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$150,000.00 Cost Estimate File Attached: Yes		Work Performed On-Site: Partial		
Funding Information: 518106062(esax22005d)		Government Furnished Property/Facilities: No		
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: CAREY F LIVELY , Code 421.7, Bldg , Room				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element	Fiscal Year/Fund
518106062	esax22005d

Statement of Work

Item	Description						
1	Systems Engineering-GLORY						
	<table border="1"> <thead> <tr> <th>Performance Specifications</th> <th>Delivery Schedule:</th> </tr> </thead> <tbody> <tr> <td>Completion of Input of Requirements to DOORS Traceability Matrix Completion of Preliminary Launch Vehicle Interface Document</td> <td>60 Day(s)</td> </tr> </tbody> </table>	Performance Specifications	Delivery Schedule:	Completion of Input of Requirements to DOORS Traceability Matrix Completion of Preliminary Launch Vehicle Interface Document	60 Day(s)		
Performance Specifications	Delivery Schedule:						
Completion of Input of Requirements to DOORS Traceability Matrix Completion of Preliminary Launch Vehicle Interface Document	60 Day(s)						
	<table border="1"> <thead> <tr> <th>Statement of Work Documents</th> <th>Comment</th> </tr> </thead> <tbody> <tr> <td> Stellar Glory_SOW 0205-10051_JScfl.doc</td> <td>None</td> </tr> <tr> <td> New TaskMETS1.doc</td> <td>Modified per Walt's comments-8/15</td> </tr> </tbody> </table>	Statement of Work Documents	Comment	 Stellar Glory_SOW 0205-10051_JScfl.doc	None	 New TaskMETS1.doc	Modified per Walt's comments-8/15
Statement of Work Documents	Comment						
 Stellar Glory_SOW 0205-10051_JScfl.doc	None						
 New TaskMETS1.doc	Modified per Walt's comments-8/15						
	<table border="1"> <thead> <tr> <th>Journal Entry</th> <th>Entered By</th> <th>Entry Date</th> </tr> </thead> <tbody> <tr> <td> 7/28/05 Tim Dunfee will add the financial ccharge information.</td> <td>ATR</td> <td>07/28/2005 10:29 AM</td> </tr> </tbody> </table>	Journal Entry	Entered By	Entry Date	 7/28/05 Tim Dunfee will add the financial ccharge information.	ATR	07/28/2005 10:29 AM
Journal Entry	Entered By	Entry Date					
 7/28/05 Tim Dunfee will add the financial ccharge information.	ATR	07/28/2005 10:29 AM					

Return to List	Contract	View/Process
Edit Task Header	Proposal Instructions	Funding
Property/GFE	Task Order Docs	Statement of Work
		Cancel Task Order
		Proposal

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 111/0 (Technical)

Title: Principal Investigator Sensor Flight Testing

Task Period: 08/22/2005 - 08/21/2006

Flight: Non-Flight

Process Stage: CSp_Proposal_Review

Process Date: 08/29/2005

Status: Awaiting Review

Assistant Technical Representative (ATR) FRANK J KIRCHMAN	<input checked="" type="checkbox"/> Signature FRANK J KIRCHMAN	Date 08/09/2005 09:02 AM	Org Code 556.0	Phone (301)286-1218
Branch Head JOHN LEON	<input checked="" type="checkbox"/> Signature JOHN LEON	Date 08/11/2005 08:50 AM	Org Code 556.0	Phone (301)286-5962
Contract Resource Analyst PEIFEN SHAW	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 08/11/2005 09:04 AM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 08/29/2005 02:42 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 08/11/2005 11:33 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 08/11/2005 11:33 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$100,000.00		Cost Estimate File Attached: No		Work Performed On-Site: None
Funding Information: 51-606(2005)		Government Furnished Property/Facilities: No		
Task Background Attached: Yes				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: FRANK J KIRCHMAN , Code 556.0, Bldg , Room				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.



Funding

Job Order Number/WBS Element

51-606

Fiscal Year/Fund

2005

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			



Statement of Work

Item Description	
1 Statement of Work	
Performance Requirements See attached SOW.	Delivery Schedule: 12 Month(s)
Statement of Work Documents	Comment
Task 111.doc	None



Task Order Documents



111_Task_Background_2413-0.doc

Comment: None



Process Task Order

Approve

Disapprove

Return to List	Contract	View/Process
Edit Task Header	Proposal Instructions	Funding
Property/GFE	Task Order Docs	Statement of Work
		Cancel Task Order
	Proposal	

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 112/0 (Technical)

Title: LRO Mini-RF Instrument Systems Engineering Support

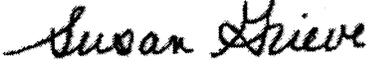
Task Period: 08/15/2005 - 09/30/2006

Flight: Non-Flight

Process Stage: CSp_Proposal_Review

Process Date: 09/26/2005

Status: Awaiting Review

Assistant Technical Representative (ATR) CRAIG R TOOLEY	<input checked="" type="checkbox"/> Signature CRAIG R TOOLEY	Date 09/13/2005 10:42 PM	Org Code 431.0	Phone (301)286-1331
Branch Head CRAIG R TOOLEY	<input checked="" type="checkbox"/> Signature CRAIG R TOOLEY	Date 09/13/2005 10:45 PM	Org Code 431.0	Phone (301)286-1331
Contract Resource Analyst PEIFEN SHAW	 SUSAN R GRIEVE	Date 09/14/2005 02:35 PM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 09/26/2005 11:44 AM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 09/15/2005 09:17 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 09/15/2005 09:19 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$200,000.00		Cost Estimate File Attached: No		Work Performed On-Site: All
Funding Information: 51041101147(EXCX22005D)		Government Furnished Property/Facilities: No		
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: CRAIG R TOOLEY , Code 431.0, Bldg , Room				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.



Funding

Job Order Number/WBS Element
51041101147

Fiscal Year/Fund
EXCX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			



Statement of Work

Item Description	
1 METS Task 112/0 SOW	
Performance Requirements	Delivery Schedule:
LRO Mini-RF Instrument Systems Engineering Support (METS Task 112/0) This task shall provide the systems engineering and management required by the LRO project to successfully accommodate the Mini-RF Technology Demonstration payload as specified in the LRO Level 1 requirements (Ref ESMD-RLEP-0010, available in LRO CM). Specific performance requirements: 1) Create and manage the LRO-Mini-RF Requirements and Goals Document. 2) Create and manage the required Mini-RF-to-LRO ICDs. 3) Conduct weekly status telecons with the Mini-RF development team on behalf of the LRO project. 4) develop a Mini-RF Accommodation schedule which details and control the delivery of required data product and hardware to the LRO mission as agreed to with the Mini-RF developers. 4) Represent the Mini-RF on the LRO Operations Team. 5) Provide a monthly report to the Project on the status of the Mini-RF payload.	13 Month(s)
LRO Mini-RF Instrument Systems Engineering Support (METS task 112/0) Cost Reporting requirement: In addition to the reporting required by the contract the CTR and monthly 533 for this task shall be sent to the LRO FA Bill Sluder (bsluder@pop400.gsfc.nasa.gov).	13 Month(s)

Statement of Work Documents	Comment
 METS Task 112-0 Supplementary Info.doc	None



Process Task Order	<input type="button" value="Approve"/>	<input type="button" value="Disapprove"/>
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Get Original or Mod

Print Screen

Close Window

To view the original Task Order click "Get Original or Mod" button while "0" appears in the drop down box. To view any of the Task Modifications, click "Get Original or Mod" with the desired mod number selected in the drop down box.

View SOW History

Clicking this "View SOW History" button will display a listing of all Statement of Work Items with all of the associated Performance Specifications, Documents and Journal Entries from the original task as well as any task modifications that exist in the system.

Task Num/Mod Num: 115/0 (Technical) **Title:** Sample Analysis at Mars (SAM) Instrument Systems Engineering **Task Period:** 08/25/2005 - 08/24/2006
Flight: Non-Flight **Process Stage:** Fully_Awarded **Status Date:** 09/06/2005 **Awarded To:** SGT Inc.
Current Mod. Est. Cost: \$261,547.00 **Current Mod Max. Fee:** \$22,885.00 **Current Mod Cost (Mod Est Cost + Mod Max Fee):** \$284,432.00
Total Est. Cost: \$261,547.00 **Total Maximum Fee:** \$22,885.00 **Task Order Total Cost (Total Est Cost + Total Max Fee):** \$284,432.00

Assistant Technical Representative (ATR)	<input type="checkbox"/> Signature FRANK J KIRCHMAN	Date 08/17/2005 09:03 AM	Org Code 556.0	Phone (301)286-4809
Branch Head	<input type="checkbox"/> Signature JOHN LEON	Date 08/17/2005 09:14 AM	Org Code 556.0	Phone (301)286-5962
Contract Resource Analyst	<input type="checkbox"/> Signature PEIFEN SHAW I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.	Date 08/17/2005 09:28 AM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR)	<input type="checkbox"/> Signature WALTER T FLOURNOY	Date 09/02/2005 10:43 AM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp)	<input type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 09/06/2005 10:02 AM	Org Code 210.M	Phone (301)286-4240
Contracting Officer (CO)	<input type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 09/06/2005 10:33 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$250,000.00		Cost Estimate File Attached: No		Work Performed On-Site: All
Funding Information: 51-979-10-20(ESAX22005D)		Government Furnished Property/Facilities: No		
Task Background Attached: Yes				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: DEBORAH A CLARK , Code 556.0, Bldg , Room				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Miscellaneous	Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element	Fiscal Year/Fund
51-979-10-20	ESAX22005D

Statement of Work

Item	Description	
1	Statement of Work	
	Performance Specifications	Delivery Schedule:
	See attached SOW.	12 Month(s)
	Statement of Work Documents	Comment
	 Task 115 SOW.doc	None

Task Order Documents

Return to List	Contract	View/Process
Edit Task Header	Proposal Instructions	Funding
Property/GFE	Task Order Docs	Statement of Work
		Cancel Task Order
		Proposal

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 118/0
(Technical)

Title: LRO Payload Systems Support **Task Period:** 09/01/2005 - 09/30/2006

Flight: Non-Flight

Process Stage:
CSp_Proposal_Review

Process Date:
09/26/2005

Status: Awaiting Review

Assistant Technical Representative (ATR) CRAIG R TOOLEY	<input checked="" type="checkbox"/> Signature CRAIG R TOOLEY	Date 09/13/2005 10:44 PM	Org Code 431.0	Phone (301)286-1331
Branch Head CRAIG R TOOLEY	<input checked="" type="checkbox"/> Signature CRAIG R TOOLEY	Date 09/13/2005 10:46 PM	Org Code 431.0	Phone (301)286-1331
Contract Resource Analyst PEIFEN SHAW	 SUSAN R GRIEVE	Date 09/14/2005 02:36 PM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 09/26/2005 11:52 AM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 09/15/2005 09:18 AM	Org Code 210.M	Phone (301)286-9083
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 09/15/2005 09:19 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$100,000.00		Cost Estimate File Attached: No		Work Performed On-Site: All
Funding Information: 515211040(ESAX22005D)		Government Furnished Property/Facilities: No		
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: CRAIG R TOOLEY , Code 431.0, Bldg , Room				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.

- 2 Miscellaneous Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.



Funding

Job Order Number/WBS Element

515211040

Fiscal Year/Fund

ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			



Statement of Work

Item Description	
1 Task 118/0 SOW	
Performance Requirements	Delivery Schedule:
LRO Payload Systems Support SOW This task is to provide system engineering and system management support to the LRO Payloads Office. Support is required in the following areas: 1) Instrument-to-Spacecraft interface management, including ICD development. 2) Support of instrument reviews through technical review of draft presentation packages and tracking of RFAs. 3) Support the development of instrument lower level requirements through review and critique of instrument requirement documents. 4) Assist in planning the integration of instruments into the overall LRO I&T schedule. 5) Assist in tracking overall instrument technical development and the reporting of status to the project. 6) Perform technical trade studies when required for evaluation of technical options involving instrument accomodation on the LRO spacecraft It is estimated that this task will require approximately 0.5 WYE.	13 Month(s)
LRO Payload Systems Support - Task reporting and deliverables: A month summary of activites and progress on assigned deliverables shall be provided to the LRO Payloads Manager. A additional copy of the Task 533 shall be provided directly to Bill Sluder/LRO FA each month.	13 Month(s)
Statement of Work Documents	Comment
 METS Task 118-0 Supplementary Info.doc	None



Process Task Order

Approve

Disapprove

Return to List	Contract	View/Process
<input type="checkbox"/> Edit Task Header	<input type="checkbox"/> Proposal Instructions	<input type="checkbox"/> Funding
<input type="checkbox"/> Property/GFE	<input type="checkbox"/> Task Order Docs	<input type="checkbox"/> Statement of Work
<input type="checkbox"/> Proposal	<input type="checkbox"/> Cost Evaluation	<input type="checkbox"/> Cancel Task Order

Contract: Multidisciplinary Engineering and Technical Services (METS) **Contract Num:** NNG05CA99C **Period:** 02/05/2005 - 02/04/2010

Task Num/Mod Num: 119/0 **Title:** Mission Success Systems Engineering Support **Task Period:** 09/15/2005 - 07/31/2006

Flight: Non-Flight **Process Stage:** CSp_Proposal_Review **Process Date:** 01/31/2006 **Status:** Awaiting Review

Assistant Technical Representative (ATR) BETH A KEER	<input checked="" type="checkbox"/> Signature BETH A KEER	Date 11/20/2005 09:58 AM	Org Code 170.0	Phone (301)286-8335
Branch Head RICHARD M DAY	<input checked="" type="checkbox"/> Signature RICHARD M DAY	Date 11/22/2005 06:15 PM	Org Code 170.0	Phone (301)286-2317
Contract Resource Analyst MARGARET S PAVLINIC I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.	<input checked="" type="checkbox"/> Signature MARGARET S PAVLINIC	Date 11/23/2005 09:32 AM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 01/25/2006 05:32 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) MELISSA L MOORE	<input checked="" type="checkbox"/> Signature MELISSA L MOORE	Date 11/28/2005 07:21 AM	Org Code 210.M	Phone (301)286-4240
Contracting Officer (CO) RAY JAMES SISNEROS	<input checked="" type="checkbox"/> Signature TERESA S SHAW	Date 11/29/2005 06:48 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$100,000.00 Cost Estimate File Attached: No		Work Performed On-Site: Partial		
Funding Information: 511TA ADM(2005)		Government Furnished Property/Facilities: No		
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: BETH A KEER , Code 170.0, Bldg , Room				

Proposal Instructions

Item Document Type Document Description

- 1 Cost Estimate This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
- 2 Implementation Plan This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal.
- 3 Miscellaneous Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.



Funding

Job Order Number/WBS Element

51ITA_ADM

Fiscal Year/Fund

2005

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			



Statement of Work

Item	Description
1	Agency Directives Work
	Performance Requirements
	Provide comments to the Draft Systems Engineering NPR based on GSFC experience.
	Attend Meetings regarding the development of the Systems Engineering NPR (approx. 3) requiring local travel to NASA HQ.
	Deliver Draft NPR language for a systems engineering NPR that is consistent with GSFC best practices and methodologies.
	Provide expert comments based on GSFC in-house project development systems engineering practices, experiences, and less
	Provide rationale to support the comments based on impacts to mission success of GSFC project(s).
	Develop an Implementation Plan for the Goddard Space Flight Center in coordination with stakeholders at the Center. This Plan is reflective of and consistent with Center positions on Systems Engineering. The plan will be approved by the Director of Mission Management.
	Statement of Work Documents
	 METS SOW Syst Eng support.doc
Item	Description

2 Systems Engineering

Performance Requirements

Provide expert systems engineering support for special assessments of GSFC spacecraft and Expendable Launch Vehicle as for specific project risks that are identified by the Office of Mission Success. Expertise provided is expected to be at a GSFC experience no less than that of the Director of AETD or equivalent. It is important to have the strategic insight that specific requests will often-times be cross-cutting functions.

Item Description

3 Requirements Mgmt - Systems Engineering

Performance Requirements

Provide requirements management and compliance verification support to facilitate/enable flowdown of Agency requirements specific requirements.

The contractor shall support the development of a single set of requirements that reside in a configuration controlled dBase requirements to GSFC requirements. The dBase will also be able to support project specific requirements that are config

The contractor shall work with civil servants as well as other contractors that are supporting this overall GSFC effort through dBase of requirements traceability and compliance tracking shall be maintained through the CM process established by

The Requirements dBase shall be capable of being used for tracking requirements as well as for verification and compliance development of the dBase will be consistent with the priorities of the Center as established by the ATR.



Process Task Order

Approve

Disapprove

[Return to List](#)[Contract](#)[View/Process](#)[Funding](#)[Create Task Mod](#)[Proposal](#)[Cost Evaluation](#)**Contract:** Multidisciplinary Engineering and Technical Services (METS)**Contract Num:** NNG05CA99C**Period:** 02/05/2005 - 02/04/2010**Task Num/Mod Num:** 120/0 (Technical)**Title:** GOES N-P Project Mission Operations Services**Task Period:** 10/01/2005 - 09/30/2006**Flight:** Non-Flight**Process Stage:** Fully_Awarded**Process Date:** 09/29/2005**Awarded To:** SGT Inc.**Current Mod. Est. Cost:** \$6,890,332.00**Current Mod Max. Fee:** \$597,071.00**Current Mod Cost(Mod Est Cost + Mod Max Fee):** \$7,487,403.00**Total Estimated Cost:** \$6,890,332.00**Total Maximum Fee:** \$597,071.00**Task Order Total Cost(Total Est Cost + Total Max Fee):** \$7,487,403.00

Assistant Technical Representative (ATR) CAROLYN P DENT	<input checked="" type="checkbox"/> Signature CAROLYN P DENT	Date 09/14/2005 10:13 AM	Org Code 581.0	Phone (301)286-6801
Branch Head ANDRE DRESS	<input checked="" type="checkbox"/> Signature ANDRE DRESS	Date 09/14/2005 03:17 PM	Org Code 416.0	Phone (301)286-5321
Contract Resource Analyst MARGARET S PAVLINIC	<input checked="" type="checkbox"/> Signature PEIFEN SHAW	Date 09/15/2005 07:41 AM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 09/29/2005 10:01 AM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) MELISSA L MOORE	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 09/29/2005 11:00 AM	Org Code 210.M	Phone (301)286-4240
Contracting Officer (CO) RAY JAMES SISNEROS	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 09/29/2005 11:11 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$4,800,000.00		Cost Estimate File Attached: No		Work Performed On-Site: Partial
Funding Information: 51R61645738901(ESAX22005R)		Government Furnished Property/Facilities: Yes		
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: CAROLYN P DENT , Code 415.0, Bldg , Room				

Proposal Instructions

Item Document Type Document Description

- 1 Cost Estimate This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
- 2 Implementation Plan This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal.
- 3 Miscellaneous Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.

Funding

Job Order Number/WBS Element
51R61645738901

Fiscal Year/Fund
ESAX22005R

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			

Property

Item	Property Type	Property Description
1	Facility	NOAA SOCC
2	Property	Computing Resources located at NOAA SOCC

Statement of Work

Item	Description
1	Statement of Work
	Performance Requirements
	Delivery

Deliverables must be technically accurate and acceptable to execute on-orbit GOES N-P operations.	Schedule: 12 Month (s)
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Statement of Work Documents	Comment
 METS GOESN MOST FY06.doc	None

Return to List	Contract	View/Process
Edit Task Header	Proposal Instructions	Funding
Property/GFE	Task Order Docs	Statement of Work
		Cancel Task Order
		Proposal

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 125/0 (Technical)

Title: ASIST Ground System Support for LRO Flight Software Lab

Task Period: 10/01/2005 - 05/30/2006

Flight: Non-Flight

Process Stage: CSp_Proposal_Review

Process Date: 10/18/2005

Status: Awaiting Review

Assistant Technical Representative (ATR) EDWIN H FUNG	<input checked="" type="checkbox"/> Signature EDWIN H FUNG	Date 09/27/2005 07:31 PM	Org Code 584.0	Phone (301)286-7347
Branch Head JOHN T DONOHUE	<input checked="" type="checkbox"/> Signature JOHN T DONOHUE	Date 09/28/2005 07:33 AM	Org Code 584.0	Phone (301)286-6149
Contract Resource Analyst MARGARET S PAVLINIC I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.	<input checked="" type="checkbox"/> Signature MARGARET S PAVLINIC	Date 09/29/2005 12:43 PM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 10/18/2005 07:19 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 09/30/2005 12:54 PM	Org Code 210.H	Phone (301)286-4309
Contracting Officer (CO) GERALDINE T HUMPHREY	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 09/30/2005 02:51 PM	Org Code 210.H	Phone (301)286-4309
Estimated Cost: \$25,000.00 Cost Estimate File Attached: No		Work Performed On-Site: All		
Funding Information: 51-521-10-3B(ESAX22005D)		Government Furnished Property/Facilities: Yes		
Task Background Attached: Yes				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: EDWIN H FUNG , Code 584.0, Bldg , Room				

Proposal Instructions

Item Document Type Document Description

- 1 Cost Estimate This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
- 2 Implementation Plan This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal.
- 3 Miscellaneous Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.



Funding

Job Order Number/WBS Element

51-521-10-3B

Fiscal Year/Fund

ESAX22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			



Property

Item	Property Type	Property Description
1	Facility	ASIST Development Lab
2	Property	Computers in the ASIST Development Lab



Statement of Work

Item Description	
1 To provide ASIST support for LRO Flight Software Lab	
Performance Requirements	Delivery Schedule:
Monthly status to include (1)summary of monthly progress; (2) plans for next month; (3) oblems/issues and (4) resolution of problems/issues.	6 Month(s)
Item Description	
2 To provide ASIST interface with Code 582's Core Flight Executive (CFE) architecture	
Performance Requirements	Delivery Schedule:
Monthly status to include (1)summary of monthly progress; (2) plans for next month; (3) oblems/issues and (4) resolution of problems/issues.	6 Month(s)



Task Order Documents



125_Task_Background_2478-0.doc

Comment: Task Order Background for LRO Support



Process Task Order

Approve

Disapprove

Return to List	Contract	View/Process
<input type="checkbox"/> Edit Task Header	<input type="checkbox"/> Funding	<input type="checkbox"/> Statement of Work
<input type="checkbox"/> Proposal Instructions	<input type="checkbox"/> Cancel Task Order	
<input type="checkbox"/> Property/GFE	<input type="checkbox"/> Task Order Docs	<input type="checkbox"/> Proposal
		<input checked="" type="checkbox"/> Cost Evaluation

Contract: Multidisciplinary Engineering and Technical Services (METS) **Contract Num:** NNG05CA99C **Period:** 02/05/2005 - 02/04/2010

Task Num/Mod Num: 126/0 **Title:** Alternate Computer Security Official for (Technical) Code 590 **Task Period:** 12/01/2005 - 11/30/2006

Flight: Non-Flight **Process Stage:** CSp_Proposal_Review **Process Date:** 11/23/2005 **Status:** Awaiting Review

Assistant Technical Representative (ATR) ANGELA C GRANT	<input checked="" type="checkbox"/> Signature JOHN S GAGOSIAN	Date 11/15/2005 05:58 PM	Org Code 591.0	Phone (301)286-4811
Branch Head JOHN S GAGOSIAN	<input checked="" type="checkbox"/> Signature JOHN S GAGOSIAN	Date 11/15/2005 05:59 PM	Org Code 591.0	Phone (301)286-6392
Contract Resource Analyst MARGARET S PAVLINIC	<input checked="" type="checkbox"/> Signature MARGARET S PAVLINIC	Date 11/16/2005 11:06 AM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 11/23/2005 02:14 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) MELISSA L MOORE	<input checked="" type="checkbox"/> Signature MELISSA L MOORE	Date 11/18/2005 11:19 AM	Org Code 210.0	Phone (301)286-4380
Contracting Officer (CO) RAY JAMES SISNEROS	<input checked="" type="checkbox"/> Signature WILLIAM A HATCHL	Date 11/18/2005 04:15 PM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$135,000.00 Cost Estimate File Attached: No		Work Performed On-Site: All		
Funding Information: 51LOG591(ESA22005D)		Government Furnished Property/Facilities: Yes		
Task Background Attached: Yes				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: ANGELA C GRANT , Code 591.0, Bldg , Room				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Implementation Plan	This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal.
3	Miscellaneous	Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.



Funding

Job Order Number/WBS Element
51LOG591

Fiscal Year/Fund
ESA22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			



Property

Item	Property Type	Property Description
1	Property	computers
2	Facility	office equipment



Statement of Work

Item Description		
1 Mitigation of vulnerabilities from IT Scans on computers in our network		
Performance Requirements	Delivery Schedule:	
Each quarter vulnerability scanning is performed by GSFC, the ACSO is responsible for getting the reports to the sys admins and assuring the vulnerabilities are corrected or waived.	365 Day(s)	
Journal Entry	Entered By	Entry Date
 This the GSFC center policy there on file or document to upload	ATR	09/22/2005 05:25 PM
Item Description		
2 Overall responsibility for sound IT principles followed in Code 590 as instructed by CSO and DCSO.		
Performance Requirements	Delivery Schedule:	
The DCSO (Directorate Computer Security Official) and the 590 CSO will determine the policies and ensure sound IT security procedures for the division, the ACSO has the responsibility to ensure that these policies and procedures are carried out by the system admins. Therefore the ACSO has a leadership role in regards to the sys admin team. The ACSO will be carrying	365 Day(s)	

out (under the direction of the government CSO) assignments of completion of various projects and policies dictated by the AET Directorate.		
Journal Entry	Entered By	Entry Date
 There is no document for this requirement other that the protocol established by AETD.	ATR	09/22/2005 05:31 PM
Item Description		
3 Processing waivers, vpn account, domain account, paperwork for the division.		
Performance Requirements	Delivery Schedule:	
GSFC, Code 704, has develop many different procedures for the processing of various vaivers, forms and paperwork related to IT security and IT functions. It falls on the CSO and therefore the ACSO to be the central approval office for many of these. Management approves the employees right to do something, but then the CSO/ACSO has to see if it is done in a safe and prudent manner as far as IT security and networks are involved.	365 Day(s)	
Journal Entry	Entered By	Entry Date
 These rules and procedures are written by Code 704 and are not in documents.	ATR	09/22/2005 05:36 PM
Item Description		
4 Writing IT Security Documents		
Performance Requirements	Delivery Schedule:	
ACSO will assist CSO in researching and writing the new Risk Assessment, IT Security Plan, Contingency Plan, Rules of Behavior for the MESA Division this year. 2005-2006 is when the new documents are due. This year we are required to write these docs under the NIST protocol which is new to everyone at GSFC, this will require a lot of additional work.	365 Day(s)	
Journal Entry	Entered By	Entry Date
 No where to upload docs from, but here they are: NPR 2810.1, NIST 800-26, NIST-800-34, NIST 800-18, NIST 800-53, FIPS 199,NIST 800-60.	ATR	09/22/2005 05:43 PM



Task Order Documents



126_Task_Background_2485-0.doc

Comment: Task Order Docs per W. Flournoy.



Process Task Order	Approve	Disapprove
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Return to List	Contract	View/Process
<input type="checkbox"/> Edit Task Header	<input type="checkbox"/> Proposal Instructions	<input type="checkbox"/> Funding
<input type="checkbox"/> Property/GFE	<input type="checkbox"/> Task Order Docs	<input type="checkbox"/> Statement of Work
<input type="checkbox"/> Proposal	<input type="checkbox"/> Cancel Task Order	<input type="checkbox"/> Cost Evaluation

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 127/0
(Technical)

Title: Safety and Facilities Rep

Task Period: 12/01/2005 - 11/30/2006

Flight: Non-Flight

Process Stage:
CSp_Proposal_Review

Process Date:
11/30/2005

Status: Awaiting Review

Signature	Date	Org Code	Phone
Assistant Technical Representative (ATR) ANGELA C GRANT <input type="checkbox"/> Signature JOHN S GAGOSIAN	11/15/2005 05:58 PM	591.0	(301)286-4811
Branch Head JOHN S GAGOSIAN <input type="checkbox"/> Signature JOHN S GAGOSIAN	11/30/2005 05:21 PM	591.0	(301)286-6392
Contract Resource Analyst MARGARET S PAVLINIC <input type="checkbox"/> Signature MARGARET S PAVLINIC I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.	11/16/2005 11:07 AM	501.0	(301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY <input type="checkbox"/> Signature WALTER T FLOURNOY	11/30/2005 05:45 PM	590.0	(301)286-3775
Contract Specialist (CSp) MELISSA L MOORE <input type="checkbox"/> Signature MELISSA L MOORE	11/18/2005 11:11 AM	210.0	(301)286-4380
Contracting Officer (CO) RAY JAMES SISNEROS <input type="checkbox"/> Signature WILLIAM A HATCHL	11/18/2005 04:16 PM	210.M	(301)286-9083
Estimated Cost: \$95,000.00 Cost Estimate File Attached: No		Work Performed On-Site: All	
Funding Information: 511TINS591(ESA22005D)		Government Furnished Property/Facilities: Yes	
Task Background Attached: Yes			
Contractor will develop specification or statement of work under this task for a future procurement: No			
Deliver To: ANGELA C GRANT , Code 591.0, Bldg , Room			

Proposal Instructions

Item Document Type Document Description

- 1 Cost Estimate This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
- 2 Implementation Plan This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal.
- 3 Miscellaneous Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.



Funding

Job Order Number/WBS Element
511TINS591

Fiscal Year/Fund
ESA22005D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			



Property

Item	Property Type	Property Description
1	Facility	office equipment
2	Property	Computers



Statement of Work

Item Description	
1 Safety Rep for MESA Division	
Performance Requirements	Delivery Schedule:
- attend monthly AETD safety meetings - carry out any assignments	365 Day(s)

from the directorate or division regarding safety, facilities maintenance, etc. - write the MESA Division Safety Manual - handle Health and Safety walk-thru		
Journal Entry	Entered By	Entry Date
 no documents available	ATR	09/22/2005 06:14 PM
Item Description		
2 Facilities Coordinator for MESA Division		
Performance Requirements	Delivery Schedule:	
- coordinate jobs to be performed (improvements, fixes, new builds) - works on emergency repairs - coordinate with FMD	365 Day(s)	
Journal Entry	Entered By	Entry Date
 no documents available	ATR	09/22/2005 06:15 PM
Item Description		
3 Property Manager for MESA Division		
Performance Requirements	Delivery Schedule:	
- assist branch heads with property management by users - maintain the property manual (How to Manage Your Property) - coordinate with GSFC property codes with record keeping	365 Day(s)	
Journal Entry	Entered By	Entry Date
 no documents available	ATR	09/22/2005 06:16 PM
Item Description		
4 NOTE: All References to SOW		
Performance Requirements	Delivery Schedule:	
Please note that all skills and requirements for this task are written up in the Task Doc. That's where the ATR (me) thought it was suppose to go. Thanks, Christie Grant	365 Day(s)	



Task Order Documents



127_Task_Background_2486-0.doc

Comment: Task Order Docs per W. Flourney.



Process Task Order

Approve

Disapprove

Return to List
Contract
View/Process

Edit Task Header
 Proposal Instructions
 Funding
 Statement of Work
 Cancel Task Order

Property/GFE
 Task Order Docs
 Proposal
 Cost Evaluation

Contract: Multidisciplinary Engineering and Technical Services (METS)
Contract Num: NNG05CA99C
Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 130/0 (Technical)
Title: MESA IT Support and System Administration
Task Period: 12/01/2005 - 11/30/2006

Flight: Non-Flight
Process Stage: CSp_Proposal_Review
Process Date: 11/22/2005
Status: Awaiting Review

Assistant Technical Representative (ATR) DAVID A QUINN <div style="text-align: right;"> <input checked="" type="checkbox"/> Signature THOMAS H STENGLE </div>	Date 11/15/2005 10:04 AM	Org Code 595.0	Phone (301)286-6681
Branch Head THOMAS H STENGLE <div style="text-align: right;"> <input checked="" type="checkbox"/> Signature THOMAS H STENGLE </div>	Date 11/15/2005 10:04 AM	Org Code 595.0	Phone (301)286-5478
Contract Resource Analyst MARGARET S PAVLINIC I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5. <div style="text-align: right;"> <input checked="" type="checkbox"/> Signature MARGARET S PAVLINIC </div>	Date 11/15/2005 01:03 PM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY <div style="text-align: right;"> <input checked="" type="checkbox"/> Signature WALTER T FLOURNOY </div>	Date 11/22/2005 12:32 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) MELISSA L MOORE <div style="text-align: right;"> <input checked="" type="checkbox"/> Signature MELISSA L MOORE </div>	Date 11/16/2005 04:11 PM	Org Code 210.0	Phone (301)286-4380
Contracting Officer (CO) RAY JAMES SISNEROS <div style="text-align: right;"> <input checked="" type="checkbox"/> Signature TERESA S SHAW </div>	Date 11/17/2005 08:19 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$300,000.00 Cost Estimate File Attached: No		Work Performed On-Site: All	
Funding Information: 51ITINS590(2006)		Government Furnished Property/Facilities: Yes	
Task Background Attached: No			
Contractor will develop specification or statement of work under this task for a future procurement: No			
Deliver To: DAVID A QUINN , Code 595.0, Bldg , Room			

Proposal Instructions

Item Document Type Document Description

- 1 Cost Estimate This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
- 2 Implementation Plan This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal.
- 3 Miscellaneous Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.



Funding

Job Order Number/WBS Element
51ITINS590

Fiscal Year/Fund
2006

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			



Property

Item	Property Type	Property Description
1	Facility	MESA Lab
2	Property	GFE IT/Computer Hardware/Software



Statement of Work

Item Description	1 Statement of Work	
Performance Requirements	Delivery Schedule:	
See SOW	12 Month(s)	
Statement of Work Documents	Comment	
051107 Final Sys Admin Task SOWFY06.doc	None	
Item Description	2 Revised SOW	

Performance Requirements	Delivery Schedule:
See statement of work	12 Month(s)
Statement of Work Documents	Comment
 051115 Final Sys Admin Task SOW FY06 [1],Task 130 SOW.doc	Updated SOW



Process Task Order	<input type="button" value="Approve"/>	<input type="button" value="Disapprove"/>
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Return to List	Contract	View/Process
<input type="checkbox"/> Edit Task Header	<input type="checkbox"/> Proposal Instructions	<input type="checkbox"/> Funding
<input type="checkbox"/> Statement of Work	<input type="checkbox"/> Cancel Task Order	
<input type="checkbox"/> Property/GFE	<input type="checkbox"/> Task Order Docs	<input type="checkbox"/> Proposal
<input type="checkbox"/> Cost Evaluation		

Contract: Multidisciplinary Engineering and Technical Services (METS) **Contract Num:** NNG05CA99C **Period:** 02/05/2005 - 02/04/2010

Task Num/Mod Num: 132/0 (Technical) **Title:** LDCM Mission Systems Engineering Support **Task Period:** 11/01/2005 - 01/31/2010

Flight: Non-Flight **Process Stage:** CSp_Proposal_Review **Process Date:** 12/01/2005 **Status:** Awaiting Review

Assistant Technical Representative (ATR) DEL T JENSTROM	<input checked="" type="checkbox"/> Signature DEL T JENSTROM	Date 11/04/2005 09:48 AM	Org Code 427.0	Phone (301)286-6316
Branch Head MARK D BRUMFIELD	<input checked="" type="checkbox"/> Signature MARK D BRUMFIELD	Date 11/08/2005 02:31 PM	Org Code 420.0	Phone (301)286-4942
Contract Resource Analyst MARGARET S PAVLINIC	<input checked="" type="checkbox"/> Signature MARGARET S PAVLINIC	Date 11/14/2005 10:10 AM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 12/01/2005 05:10 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) MELISSA L MOORE	<input checked="" type="checkbox"/> Signature MAYRA A NIEVES-TORRES	Date 11/15/2005 10:05 AM	Org Code 210.0	Phone (301)286-4380
Contracting Officer (CO) RAY JAMES SISNEROS	<input checked="" type="checkbox"/> Signature RAY JAMES SISNEROS	Date 11/15/2005 05:03 PM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$981,525.00 Cost Estimate File Attached: No		Work Performed On-Site: All		
Funding Information: 518041401(2005)		Government Furnished Property/Facilities: Yes		
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: Yes				
Deliver To: DEL T JENSTROM , Code 427.0, Bldg , Room				

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Implementation Plan	This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal.
3	Miscellaneous	Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.





Funding

Job Order Number/WBS Element
518041401

Fiscal Year/Fund
2005

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
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Total Funding	\$0.00	\$0.00	\$0.00			
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Property

Item	Property Type	Property Description
1	Facility	Office Space
2	Property	Telephone Service



Statement of Work

Item	Description
1	Statement Of Work
	Performance Requirements
	Weekly Status Reports
	Delivery Schedule:
	51 Month(s)
	Statement of Work Documents
	Comment
	None
	LDCM SE Task SOW 051104.doc



Process Task Order

Approve

Disapprove

Return to List	Contract	View/Process
Edit Task Header	Proposal Instructions	Funding
Property/GFE	Task Order Docs	Statement of Work
		Proposal
		Cancel Task Order

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 133/0 **Title:** ACS Support for the JWST Project

Task Period: 11/01/2005 - 12/31/2006

Flight: Non-Flight

Process Stage: CSp_Proposal_Review

Process Date: 11/04/2005

Status: Awaiting Review

Assistant Technical Representative (ATR) JOHN S GAGOSIAN	<input checked="" type="checkbox"/> Signature JOHN S GAGOSIAN	Date 10/28/2005 12:39 PM	Org Code 591.0	Phone (301)286-6392
Branch Head FELICIA HARRISON	<input checked="" type="checkbox"/> Signature FELICIA HARRISON	Date 10/28/2005 12:43 PM	Org Code 443.0	Phone (301)286-0674
Contract Resource Analyst MARGARET S PAVLINIC	<input checked="" type="checkbox"/> Signature MARGARET S PAVLINIC	Date 10/31/2005 11:31 AM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 11/04/2005 11:25 AM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) MAYRA A NIEVES-TORRES	<input checked="" type="checkbox"/> Signature MAYRA A NIEVES-TORRES	Date 10/31/2005 01:45 PM	Org Code 210.M	Phone (301)286-0422
Contracting Officer (CO) RAY JAMES SISNEROS	<input checked="" type="checkbox"/> Signature RAY JAMES SISNEROS	Date 11/02/2005 11:19 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$170,000.00 Cost Estimate File Attached: No		Work Performed On-Site: All		
Funding Information: 411672.02.10(2006)		Government Furnished Property/Facilities: No		
Task Background Attached: Yes				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: JOHN S GAGOSIAN , Code 591.0, Bldg , Room				

Item Document Type Document Description

- 1 Cost Estimate This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
- 2 Implementation Plan This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal.
- 3 Miscellaneous Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.





Funding

Job Order Number/WBS Element

411672.02.10

Fiscal Year/Fund

2006

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			



Statement of Work

Item Description	
1 ACS Support	
Performance Requirements	Delivery Schedule:
Maintain insight into ongoing and planned activities of the James Webb Space Telescope (JWST) Prime Contractor related to the JWST Attitude Control Subsystem (ACS). Evaluate the Prime Contractor's efforts in requirements derivation, interface definition, design, simulation, integration, test, verification, and risk management. Document findings in these areas via technical memoranda.	14 Month(s)
Attend all Project and External technical reviews related to the Observatory ACS. If necessary, help to organize peer reviews within 590 to discuss technical issues. Provide technical opinions and recommendations to the Lead GN&C Systems Engineer on the JWST Project via telecons, face-to-face meetings, and technical memoranda.	14 Month(s)
Provide monthly written reports to the ATR focusing on GN&C design/development progress, technical issues, programmatic issues, and plans for the upcoming month.	14 Month(s)



Task Order Documents



133_Task_Background_2523-0.doc

Comment: Task Background per W.
Flournoy direction



Process Task Order

Approve

Disapprove

Return to List	Contract	View/Process
Edit Task Header	Proposal Instructions	Funding
	Statement of Work	Cancel Task Order
Property/GFE	Task Order Docs	Proposal
	Cost Evaluation	<input checked="" type="checkbox"/> Section

Contract: Multidisciplinary Engineering and Technical Services (METS) **Contract Num:** NNG05CA99C **Period:** 02/05/2005 - 02/04/2010

Task Num/Mod Num: 136/0 **Title:** ITSS Development and Deployment System Engineering **Task Period:** 12/01/2005 - 09/30/2006

Flight: Non-Flight **Process Stage:** CSp_Proposal_Review **Process Date:** 12/23/2005 **Status:** Awaiting Review

Assistant Technical Representative (ATR) MARK F VOYTON	<input checked="" type="checkbox"/> Signature MARK F VOYTON	Date 12/01/2005 04:01 PM	Org Code 561.0	Phone (301)286-4987
Branch Head JANET L BARTH	<input checked="" type="checkbox"/> Signature JANET L BARTH	Date 12/01/2005 06:05 PM	Org Code 561.0	Phone (301)286-5659
Contract Resource Analyst MARGARET S PAVLINIC	<input checked="" type="checkbox"/> Signature MARGARET S PAVLINIC	Date 12/02/2005 08:29 AM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 12/23/2005 01:47 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) MELISSA L MOORE	<input checked="" type="checkbox"/> Signature MELISSA L MOORE	Date 12/08/2005 07:06 AM	Org Code 210.M	Phone (301)286-4240
Contracting Officer (CO) RAY JAMES SISNEROS	<input checked="" type="checkbox"/> Signature RAY JAMES SISNEROS	Date 12/08/2005 04:27 PM	Org Code 210.M	Phone (301)286-9083
<i>NOT-TO-EXCEED:</i> This mod increases the NTE value of the task and extends the PoP through 1/31/06. No mods will be awarded prior to definitization of the proposed task value.				
Estimated Cost: \$300,000.00 Cost Estimate File Attached: No		Work Performed On-Site: Partial		
Funding Information: 4116720504(2006)		Government Furnished Property/Facilities: No		
Task Background Attached: Yes				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: MARK F VOYTON , Code 443.0, Bldg , Room				

Proposal Instructions

Item Document Type Document Description

- 1 Cost Estimate This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
- 2 Implementation Plan This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal.
- 3 Miscellaneous Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.



Funding

Job Order Number/WBS Element
4116720504

Fiscal Year/Fund
2006

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			



Statement of Work

Item Description	
1 Weekly Status Reports	
Performance Requirements	Delivery Schedule:
Deliver Weekly Status Reports including work completed this week, plans for next week, and any issues.	10 Month(s)
Item Description	
2 ITSS Development	
Performance Requirements	Delivery Schedule:
Develop and deliver the SITS Specification document.	3 Month(s)

Develop and deliver the FVTS Specification Document.	4 Month(s)
Develop and deliver the MIRI SITS IRCD.	4 Month(s)
Develop and deliver the SITS Test Plan and Procedures.	6 Month(s)
Lead the ITSS development activities including coordination of the following activities: SITS Development, Integration and Test , FVTS Development, Integration and Test, ITSS GSE Development, Integration and Test.	10 Month(s)
Deliver the MIRI SITS, NIRCAM SITS, NIRSPEC SITS, and the FGS FVTS.	10 Month(s)
Item Description	
3 ITSS Deployment	
Performance Requirements	Delivery Schedule:
Coordinate the Deployment of the final two SIDUs into the field.	3 Month(s)
Coordinate the deployment of the MIRI, NIRspec, and NIRCAM SITS deliveries.	10 Month(s)
Coordinate the delivery of the FVTS system deliveries.	10 Month(s)
Item Description	
4 ITSS Maintenance	
Performance Requirements	Delivery Schedule:
Participate in the Help Desk Review Board decisions and continue maintenance of the SIDU and SITS documentation set.	10 Month(s)



Task Order Documents



136_Task_Background_2551-0.doc

Comment: None



Process Task Order

Approve

Disapprove

Return to List	Contract	View/Process
<input type="checkbox"/> Edit Task Header	<input type="checkbox"/> Proposal Instructions	<input type="checkbox"/> Funding
<input type="checkbox"/> Property/GFE	<input type="checkbox"/> Task Order Docs	<input type="checkbox"/> Statement of Work
<input type="checkbox"/> Proposal	<input type="checkbox"/> Cost Evaluation	<input type="checkbox"/> Cancel Task Order

Contract: Multidisciplinary Engineering and Technical Services (METS) **Contract Num:** NNG05CA99C **Period:** 02/05/2005 - 02/04/2010

Task Num/Mod Num: 138/0 (Technical) **Title:** Flight Software (FSW) Branch - C3I Communications Adapter Software Engineering **Task Period:** 01/01/2006 - 09/30/2006

Flight: Non-Flight **Process Stage:** CSp_Proposal_Review **Process Date:** 01/31/2006 **Status:** Awaiting Review

Assistant Technical Representative (ATR) THOMAS M JACKSON	<input checked="" type="checkbox"/> Signature THOMAS M JACKSON	Date 12/08/2005 11:24 PM	Org Code 582.0	Phone (301)286-4939
Branch Head ELAINE M SHELL	<input checked="" type="checkbox"/> Signature ELAINE M SHELL	Date 12/20/2005 02:01 PM	Org Code 582.0	Phone (301)286-2628
Contract Resource Analyst MARGARET S PAVLINIC	<input checked="" type="checkbox"/> Signature MARGARET S PAVLINIC	Date 12/20/2005 03:33 PM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 01/31/2006 06:23 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) MELISSA L MOORE	<input checked="" type="checkbox"/> Signature MAYRA A NIEVES-TORRES	Date 01/18/2006 03:50 PM	Org Code 210.M	Phone (301)286-4240
Contracting Officer (CO) RAY JAMES SISNEROS	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 12/21/2005 11:04 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$150,000.00 Cost Estimate File Attached: No		Work Performed On-Site: All		
Funding Information: 141141.06.04.02.03.06(2006)		Government Furnished Property/Facilities: Yes		
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: THOMAS M JACKSON , Code 582.0, Bldg , Room				

Proposal Instructions

Item Document Type Document Description

- 1 Cost Estimate This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
- 2 Implementation Plan This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal.
- 3 Miscellaneous Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.



Funding

Job Order Number/WBS Element
141141.06.04.02.03.06

Fiscal Year/Fund
2006

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
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Total Funding	\$0.00	\$0.00	\$0.00			
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Property

Item	Property Type	Property Description
1	Facility	FSW Lab



Statement of Work

Item Description	
1 SOW	
Performance Requirements	Delivery Schedule:
See attached SOW	10 Month(s)
Statement of Work Documents	Comment
 Menke CCA SOW 12022005.doc	None



Process Task Order	<input type="button" value="Approve"/>	<input type="button" value="Disapprove"/>
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Return to List	Contract	View/Process
<input type="checkbox"/> Edit Task Header	<input type="checkbox"/> Funding	<input type="checkbox"/> Statement of Work
<input type="checkbox"/> Proposal Instructions	<input type="checkbox"/> Cancel Task Order	<input type="checkbox"/> Property/GFE
<input type="checkbox"/> Task Order Docs	<input type="checkbox"/> Proposal	<input type="checkbox"/> Cost Evaluation

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 139/0 **Title:** GLAST Integration & Test Support (Technical)

Task Period: 12/30/2005 - 03/31/2006

Flight: Non-Flight

Process Stage: CSp_Proposal_Review

Process Date: 01/03/2006

Status: Awaiting Review

Assistant Technical Representative (ATR) MARK S SEIDLECK	<input checked="" type="checkbox"/> Signature MARK S SEIDLECK	Date 12/13/2005 03:56 PM	Org Code 492.0	Phone (301)286-7415
Branch Head MARK S SEIDLECK	<input checked="" type="checkbox"/> Signature MARK S SEIDLECK	Date 12/13/2005 03:56 PM	Org Code 492.0	Phone (301)286-7415
Contract Resource Analyst MARGARET S PAVLINIC I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.	<input checked="" type="checkbox"/> Signature MARGARET S PAVLINIC	Date 12/14/2005 04:35 PM	Org Code 501.0	Phone (301)286-4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 01/03/2006 11:54 AM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) MELISSA L MOORE	<input checked="" type="checkbox"/> Signature CAROL BARTON	Date 12/21/2005 09:45 AM	Org Code 210.M	Phone (301)286-4240
Contracting Officer (CO) RAY JAMES SISNEROS	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 12/21/2005 11:04 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$55,000.00 Cost Estimate File Attached: No		Work Performed On-Site: All		
Funding Information: 378710.01.04(2006)		Government Furnished Property/Facilities: Yes		
Task Background Attached: No				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: MARK S SEIDLECK , Code 492.0, Bldg , Room				

Proposal Instructions

Item Document Type Document Description

- | | | |
|---|---------------------|--|
| 1 | Cost Estimate | This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order. |
| 2 | Implementation Plan | This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal. |
| 3 | Miscellaneous | Do Not Deleete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal. |

Return to List	Contract	View/Process
<input type="checkbox"/> Edit Task Header	<input type="checkbox"/> Proposal Instructions	<input type="checkbox"/> Funding
<input type="checkbox"/> Statement of Work	<input type="checkbox"/> Cancel Task Order	
<input type="checkbox"/> Property/GFE	<input type="checkbox"/> Task Order Docs	<input type="checkbox"/> Proposal
<input type="checkbox"/> Cost Evaluation		

Contract: Multidisciplinary Engineering and Technical Services (METS) **Contract Num:** NNG05CA99C **Period:** 02/05/2005 - 02/04/2010

Task Num/Mod Num: 140/0 (Technical) **Title:** NESC/GN&C Reliability Studies **Task Period:** 12/19/2005 - 04/30/2006

Flight: Non-Flight **Process Stage:** CSp_Proposal_Review **Process Date:** 01/19/2006 **Status:** Awaiting Review

Assistant Technical Representative (ATR) JOHN S GAGOSIAN	<input checked="" type="checkbox"/> Signature JOHN S GAGOSIAN	Date 12/16/2005 10:59 AM	Org Code 591.0	Phone (301)286-6392
Branch Head JOHN S GAGOSIAN	<input checked="" type="checkbox"/> Signature JOHN S GAGOSIAN	Date 12/16/2005 10:59 AM	Org Code 591.0	Phone (301)286-6392
Contract Resource Analyst MARGARET S PAVLINIC	<input checked="" type="checkbox"/> Signature MARGARET S PAVLINIC	Date 12/21/2005 03:46 PM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 01/19/2006 12:10 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) MELISSA L MOORE	<input checked="" type="checkbox"/> Signature MELISSA L MOORE	Date 12/29/2005 09:33 AM	Org Code 210.M	Phone (301)286-4240
Contracting Officer (CO) RAY JAMES SISNEROS	<input checked="" type="checkbox"/> Signature TERESA S SHAW	Date 12/29/2005 11:34 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$50,000.00		Cost Estimate File Attached: No		Work Performed On-Site: All
Funding Information: 843515.02.01.04.03.01.03(2006)		Government Furnished Property/Facilities: No		
Task Background Attached: Yes				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: JOHN S GAGOSIAN , Code 591.0, Bldg , Room				

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			



Statement of Work

Item Description	
1 Reliability Study Support	
Performance Requirements Support NESC Reliability Study in Accordance with the Attached Statement of Work	Delivery Schedule: 5 Month(s)
Statement of Work Documents  Task_140_SOW.doc	Comment SOW for NESC GN&C Reliability Study



Task Order Documents



140_Task_Background_2584-0.doc

Comment: Background Information for Task (per W. Flourney Outline)



Process Task Order

Approve

Disapprove

Return to List	Contract	View/Process
Edit Task Header	Proposal Instructions	Funding
Property/GFE	Task Order Docs	Proposal
		Statement of Work
		Cancel Task Order
		Cost Evaluation

Contract: Multidisciplinary Engineering and Technical Services (METS)

Contract Num: NNG05CA99C

Period: 02/05/2005 - 02/04/2010

Task Num/Mod Num: 141/0 (Technical)

Title: LRO PDE Support

Task Period: 01/02/2006 - 06/30/2006

Flight: Non-Flight

Process Stage: CSp_Proposal_Review

Process Date: 01/12/2006

Status: Awaiting Review

Assistant Technical Representative (ATR) KENNETH J MCCAUGHEY	<input checked="" type="checkbox"/> Signature KENNETH J MCCAUGHEY	Date 12/16/2005 05:01 PM	Org Code 596.0	Phone (301)286-7769
Branch Head CHARLES E CLAGETT	<input checked="" type="checkbox"/> Signature CHARLES E CLAGETT	Date 12/16/2005 06:21 PM	Org Code 596.0	Phone (301)286-2438
Contract Resource Analyst MARGARET S PAVLINIC	<input checked="" type="checkbox"/> Signature MARGARET S PAVLINIC	Date 12/20/2005 04:31 PM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 01/12/2006 10:47 AM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) MELISSA L MOORE	<input checked="" type="checkbox"/> Signature CAROL BARTON	Date 12/21/2005 09:51 AM	Org Code 210.M	Phone (301)286-4240
Contracting Officer (CO) RAY JAMES SISNEROS	<input checked="" type="checkbox"/> Signature GERALDINE T HUMPHREY	Date 12/21/2005 11:05 AM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$40,000.00 Cost Estimate File Attached: No		Work Performed On-Site: Partial		
Funding Information: 515211036(ESAX22005D)		Government Furnished Property/Facilities: Yes		
Task Background Attached: Yes				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: KENNETH J MCCAUGHEY , Code 596.0, Bldg , Room				

Proposal Instructions

Item Document Type Document Description

- 1 Cost Estimate This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
- 2 Implementation Plan This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal.
- 3 Miscellaneous Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.



Funding

Job Order Number/WBS Element
515211036

Fiscal Year/Fund
ESAX22005D

Allotment Date Estimated Cost Award Fee Total Cost PR Number Updated By Last Update

Total Funding \$0.00 \$0.00 \$0.00



Property

Item	Property Type	Property Description
1	Property	Breadboard card components



Statement of Work

Item Description	
1 Electronics layout and fabrication	
Performance Requirements	Delivery Schedule:
Electronic board layout and fabrication of electronic assemblies as necessary in the development of PDE cards for LRO. The deliverable for this item is artwork drawings and printed wiring boards delivered 4 weeks after ATR approval.	6 Month(s)
Item Description	
2 Configuration management	
Performance Requirements	Delivery Schedule:
Support configuration management of drawings and documents generated in this task. The deliverable for this item is a monthly progress report.	6 Month(s)



Task Order Documents



141_Task_Background_2585-0.doc

Comment: None



Process Task Order

Approve

Disapprove

Return to List	Contract	View/Process
Edit Task Header	Proposal Instructions	Funding
Property/GFE	Task Order Docs	Statement of Work
	Proposal	Cancel Task Order
		Cost Evaluation

Contract: Multidisciplinary Engineering and Technical Services (METS) **Contract Num:** NNG05CA99C **Period:** 02/05/2005 - 02/04/2010

Task Num/Mod Num: 142/0 **Title:** SDO SDN Core Flight Design Lab Unit Implementation **Task Period:** 01/15/2006 - 04/30/2006

Flight: Non-Flight **Process Stage:** CSp_Proposal_Review **Process Date:** 01/27/2006 **Status:** Awaiting Review

Assistant Technical Representative (ATR) ROBERT J SPAGNUOLO	<input checked="" type="checkbox"/> Signature ROBERT J SPAGNUOLO	Date 12/30/2005 01:48 PM	Org Code 596.0	Phone (301)286-3122
Branch Head THOMAS D MILLER	<input checked="" type="checkbox"/> Signature THOMAS D MILLER	Date 01/03/2006 03:16 PM	Org Code 464.0	Phone (301)286-2236
Contract Resource Analyst MARGARET S PAVLINIC	<input checked="" type="checkbox"/> Signature MARGARET S PAVLINIC	Date 01/05/2006 01:11 PM	Org Code 501.0	Phone (301)286-4216
I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.				
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 01/27/2006 12:21 PM	Org Code 590.0	Phone (301)286-3775
Contract Specialist (CSp) MELISSA L MOORE	<input checked="" type="checkbox"/> Signature MELISSA L MOORE	Date 01/10/2006 02:04 PM	Org Code 210.M	Phone (301)286-4240
Contracting Officer (CO) RAY JAMES SISNEROS	<input checked="" type="checkbox"/> Signature RAY JAMES SISNEROS	Date 01/10/2006 05:58 PM	Org Code 210.M	Phone (301)286-9083
Estimated Cost: \$47,000.00 Cost Estimate File Attached: No		Work Performed On-Site: None		
Funding Information: 939252062901(ESAX22006D)		Government Furnished Property/Facilities: Yes		
Task Background Attached: Yes				
Contractor will develop specification or statement of work under this task for a future procurement: No				
Deliver To: ROBERT J SPAGNUOLO , Code 596.0, Bldg , Room				

Proposal Instructions

Item Document Type Document Description

- 1 Cost Estimate This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
- 2 Implementation Plan This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal.
- 3 Miscellaneous Do Not Deleete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.



Funding

Job Order Number/WBS Element
939252062901

Fiscal Year/Fund
ESAX22006D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
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Total Funding	\$0.00	\$0.00	\$0.00			
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Property

Item	Property Type	Property Description
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1 Property

SDO Project to Supply Qualified Parts for Circuit Board Assembly



Statement of Work

Item Description	
1 SDN Core Flight Circuit Card	
Performance Requirements	Delivery Schedule:
Fabricate 3 Units of the SDO SDN Core Flight Design as per SDO Drawing Number 2071369. Layout performed by Banks Walker of Orbital Sciences Corporation. Detailed layout questions can be answered by Mr. Walker at (301)286-1142. -End-	25 Day(s)
Item Description	
2 SDO ACE ETU Backplane	
Performance Requirements	Delivery Schedule:
Fabricate 3 Units of the SDO ACE ETU backplane as per SDO drawing number 2071372. This is an additional run of 3 units. Original units fabricated by Orbital Sciences Corporation under MSES Task 790. -END-	20 Day(s)
Item Description	
3 Assembly	
Performance Requirements	Delivery Schedule:
Assemble (1) Unit of SDN Core and (1) Unit of ACE ETU Backplane using Government Furnished Parts Kits for each unit. Assembly Drawing Number for SDN Core is 2071370. Assembly Drawing Number for ACE Backplane is 2071374. -END-	20 Day(s)
Item Description	
4 Signal Integrity Analysis	
Performance Requirements	Delivery Schedule:
Provide up to 20 days of Signal Integrity Analysis Support for SDO SDN Core using HyperLinx Modeling Tools. Modeling tools designed and maintained by Chris Fitch of Orbital Sciences Corporation in Beltsville, MD. -End-	20 Day(s)



Task Order Documents



142_Task_Background_2599-0.doc

Comment: None



Process Task Order

Approve

Disapprove

procurement: No

Deliver To: RICHARD J LYNCH , Code 443.0, Bldg , Room

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the order.
2	Implementation Plan	This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal.

- 3 Miscellaneous Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.



Funding

Job Order Number/WBS Element
4116720201

Fiscal Year/Fund
2006

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			



Statement of Work

Item Description	
1 JWST Mission Systems Engineering SOW	
Performance Requirements	Delivery Schedule:
Performance Requirement #1 Engineering Review Board METS SOW Reference: Function 3Bh, 3Bi This task is to provide a leader for the James Webb Space Telescope (JWST) Engineering Review Board (ERB). The primary tasks of the ERB Leader shall be: 1) Review technical results of major system trades and study efforts for completeness and accuracy. Forward recommendations for resolving issues	12 Month(s)

uncovered to the parties responsible for these efforts and to the Mission Systems Engineer and his Deputy. Work with the responsible parties to implement these recommendations as required.

2) At the direction of the JWST Program Manager or Mission Systems Engineer, the ERB leader shall lead the independent assessment activities of key technical aspects of the JWST baseline design and process. Among these will be the continuation of the Independent Verification Assessment Team (IVAT).

3) At the discretion of the JWST Program Manager or Mission Systems Engineer shall lead and conduct special studies to consider alternatives for system and segment designs outside the scope of the existing JWST contracts.

4) Review and contribute to critical interface issues.

5) Support verification definition activities.

6) Support requirements audits from element up through system.

7) Lead and participate in appropriate studies needed for SDR as requested.

8) Consolidate and audit the technical baseline material.

Deliverables

a. Technical Progress Report: due Monthly, 15 of the month

b. Attend Technical Meetings: as requested by the ATR

c. Trip Report: due 10 days after trip completion

d. Attend/Contribute to the Weekly/ Monthly status meetings

e. Provide Presentation Materials for Major Project Reviews (SSRs, SDRs, and PDRs, and CDRs) as requested: due 10 days prior to review.

f. Parametric Trade Studies as requested

g. Inputs into the development of Requirements, Budgets and Technical Performance Measures at all levels of the JWST system as requested

h. Provide evaluations of major reviews: due 10 days after review completion.

i. Additional analyses as requested by the ATR

Travel Both foreign and domestic travel is expected to satisfy this performance requirement. The contractor should plan on a minimum of 6 trips between Washington DC and Los Angeles and 2 trips between Washington DC and Paris France.

Performance Requirement #2 Requirements and Systems Engineering METS SOW Reference: Function 3Ba, 3Bc, 3Bd 1. The contractor shall support coordination of system engineering activities, tools and processes, among the various Government agencies, contractors, and sub-contractors. 2. The contractor shall review project documentation for the Mission Systems Engineer and his Deputy and provide inputs to the CCB process. 3. The contractor shall perform system trade studies to assist in the development of the system architecture. 4. The contractor shall support the development of requirements at all levels of the JWST system. 5. The contractor shall identify, analyze, plan and track system, segment, element and subsystem interfaces in the requirements database. 6. The contractor shall publish minutes of system engineering meetings and track action items. 7. The contractor shall travel to reviews as necessary. 8. The contractor shall support the preparation for major reviews and assist in the response to actions generated from the reviews. 9. The contractor shall generate reports and analysis using the requirements database. 10. The contractor shall coordinate and support all users of the requirements database. Deliverables a. Technical Progress Report: due Monthly, 15 of the month b. Attend Technical Meetings: as requested by the ATR c. Trip Report: due 10 days after trip completion d. Attend/Contribute to the Weekly/ Monthly status meetings e. Provide Presentation Materials for Major Project Reviews (SSRs, SDRs, and PDRs, and CDRs) as requested: due 10 days prior to review. f. Parametric Trade Studies as requested g. Weekly status report on the status of the DOORS Requirement Database to include a listing of all documents in the database, the status of each document, and other content as requested by the ATR h. Additional analyses as requested by the ATR Travel Both foreign and domestic travel is expected to satisfy this performance requirement.

12 Month(s)

<p>The contractor should plan on a minimum of 10 trips between Washington DC and Los Angeles and 1 trip between Washington DC and Paris France.</p>	
<p>Performance Requirement #3 Systems Engineering Management METS SOW Reference: Function 3Bb, 3Bg, 3Bi 1. The contractor shall support coordination of system engineering activities, tools and processes, among the various Government agencies, contractors, and sub-contractors. 2. The contractor shall review project documentation for the Mission Systems Engineer and his Deputy and provide inputs to the CCB process. 3. The contractor shall perform system trade studies to assist in the development of the system architecture. 4. The contractor shall arrange, coordinate and run the weekly Mission Systems Engineering Staff Meeting. 5. The contractor shall arrange, coordinate and run the weekly Architecture Working Group and Top 10 meetings. 6. The contractor shall publish minutes of system engineering meetings and track action items. 7. The contractor shall support the preparation for major reviews and assist in the response to actions generated from the reviews. 8. The contractor shall generate reports and analysis using the requirements database. Deliverables a. Technical Progress Report: due Monthly, 15 of the month b. Attend Technical Meetings: as requested by the ATR c. Attend/Contribute to the Weekly/ Monthly status meetings d. Provide Presentation Materials for Major Project Reviews (SSRs, SDRs, and PDRs, and CDRs) as requested: due 10 days prior to review. e. Weekly minutes from the MSE Staff meeting, AWG and Top 10 minutes. Minutes should include a listing and status of AI's assigned to and/or by MSE. f. Additional analyses as requested by the ATR Travel No travel is expected to satisfy this performance requirement.</p>	12 Month(s)
<p>Performance Requirement #4 Optical Systems</p>	12 Month(s)

Engineering METS SOW Reference: Function 3D

1. The contractor shall perform optical system engineering at the Observatory level. 2. The contractor shall participate in the development and tracking of optical requirements. 3. The contractor shall review project documentation for the Chief Systems Engineer and provide inputs to the CCB process. 4. The contractor shall perform system trade studies to assist in the development of the system architecture. 5. The contractor shall support the development of requirements at all levels of the JWST system. 6. The contractor shall review and coordinate Observatory optical interfaces. 7. The contractor shall perform a review of optical analysis to ensure that all optical requirements are justified and verifiable. 8. The contractor shall review budgets and design parameters affecting optical performance. 9. The contractor shall support optical modeling and wavefront sensing and control. 10. The contractor shall travel to reviews as necessary. 11. The contractor shall support the preparation for major reviews and assist in the response to actions generated from the reviews. 12. The contractor shall review the methodology used to separate non-common path wave front error. Deliverables

- a. Technical Progress Report: due Monthly, 15 of the month
- b. Attend Technical Meetings: as requested by the ATR
- c. Trip Report: due 10 days after meeting completion
- d. Attend/Contribute to the Weekly/ Monthly status meetings
- e. Provide Presentation Materials for Major Project Reviews (SSRs, SDRs, and PDRs, and CDRs) as requested: due 10 days prior to review.
- f. Parametric Trade Studies as requested
- g. Inputs into the development of Requirements, Budgets and Technical Performance Measures at all levels of the JWST system as requested
- h. Provide evaluations of major reviews: due 10 days after review completion.
- i. Analysis as requested by the ATR

Travel Domestic travel is expected to satisfy this performance requirement. The contractor should plan on a minimum of 2

trips between Boston and Los Angeles, 4 trips between Boston and Boulder, CO and 10 trips between Boston and Washington DC.	
<p>Performance Requirement #5 JWST Mission Efficiency METS SOW Reference: Function 3Cb, 3Cg, 3Ch 1. The contractor shall review project documentation for the Misison Systems Engineer and his Deputy and provide inputs to the CCB process. 2. The contractor shall perform system trade studies to assist in the development of the system architecture. 3. The contractor shall support the development of requirements at all levels of the JWST system. 4. The contractor shall support the preparation for major reviews and assist in the response to actions generated from the reviews. 5. The contractor shall assess the impact on observation efficiency of updates to Wave Front Sensing and Control (WFS&C) requirements and concepts 6. The contractor shall assess the impact on observation efficiency of updates to the spacecraft pointing budget. 7. The contractor shall assess the impact on observation efficiency due to the Science Advisory Team (SAT) recommendations. 8. The contractor shall update the observation efficiency budget. 9. The contractor shall provide support the preparation and assist in the response to actions for the Observatory Definition Review (ODR) as requested. (ODR Oct '06) 10. The contractor shall provide support the preparation and assist in the response to actions for the Critical Design Review (CDR) as requested for MIRI Cryo Cooler, NIRCcam, FGS, and IRSU subsystems. (MIRI Cryo Cooler CDR Sept '06, NIRCcam CDR Sept '06, FGS CDR Oct '06, IRSU CDR Sept '06) 11. The contractor shall coordinate entry into and tracing of requirements in the requirements database. 12. The contractor shall define reports to be generated from the requirements database. 13. The contractor shall provide guidance to staff on entry, tracing, and report generation activities using the</p>	12 Month(s)

requirements database. Deliverables a. Technical Progress Report: due Monthly, 15 of the month b. Attend Technical Meetings: as requested by the ATR c. Attend/Contribute to the Weekly/ Monthly status meetings d. Provide Presentation Materials for Major Project Reviews (SSRs, SDRs, and PDRs, and CDRs) as requested: due 10 days prior to review. e. Parametric Trade Studies as requested f. Inputs into the development of Requirements, Budgets and Technical Performance Measures at all levels of the JWST system as requested g. Provide evaluations of major reviews: due 10 days after review completion. h. Technical report updating the observation efficiency budget – due February 24, 2006. i. Technical report documenting the trace of JWST communications and software requirements – due June 30, 2006 j. Coordinate the generation of requirements traceability reports as requested. k. Analysis as requested by the ATR Travel No travel is expected to satisfy this performance requirement.

Performance Requirement #6 JWST Mission Modeling METS SOW Reference: Function 3Bb, 3Bd 1) The contractor shall provide senior-level systems engineering multidisciplinary analytical modeling and simulation of cryogenic opto-mechanical systems. 2) The contractor shall perform system-level analyses on integrated system performance in all configurations, both on-orbit and ground. 3) The contractor shall perform analyses to support requirements validation and flowdown, model validation and verification, and ultimately design verification. 4) The contractor shall review and provide comments on project, schedule, system, subsystem, verification and testing, and technology development. 5) The contractor shall attend and participate in project status meetings, telecons, peer reviews and major project reviews for spacecraft, telescope and instruments for the mission. 6) The contractor shall document work

12 Month(s)

via monographs and technical papers, viewgraph presentations, and technical reports. 7) The contractor shall include the analysis models and simulations, source codes, and documentation describing the models, methods and results when documenting work. 8) The contractor shall synchronize Model development, analysis, and deliverables with the JWST Systems Engineering design and model cycles. Deliverables a. Technical Progress Report: due Monthly, 15 of the month b. Attend Technical Meetings: as requested by the ATR c. Attend/Contribute to the Weekly/ Monthly status meetings d. Provide Presentation Materials for Major Project Reviews (SSRs, SDRs, and PDRs, and CDRs) as requested: due 10 days prior to review. e. Parametric Trade Studies as requested f. Inputs into the development of Requirements, Budgets and Technical Performance Measures at all levels of the JWST system as requested g. Provide evaluations of major reviews: due 10 days after review completion. h. Analysis as requested by the ATR Travel No travel is expected to satisfy this performance requirement.

Statement of Work Documents	Comment
 MSE_TaskBackground.doc	Task Background
 MSE_Task_SOW_Rev A.doc	None



Task Order Documents

 143_Task_Background_2605-0.doc Comment: Task Background



Process Task Order	Approve	Disapprove
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Return to List	Contract	View/Process
Edit Task Header	Proposal Instructions	Funding
Statement of Work	Cancel Task Order	
Property/GFE	Task Order Docs	Proposal
Cost Evaluation	<input checked="" type="checkbox"/> Section	

Contract: Multidisciplinary
Engineering and Technical Services
(METS)

Contract Num:
NNG05CA99C

Period: 02/05/2005
- 02/04/2010

**Task Num/Mod
Num:** 144/0
(Technical)

Title: LRO C&DH Diagnostics
and HW Test Support

Task Period: 01/17/2006 -
07/15/2007

Flight: Non-
Flight

Process Stage:
CSp_Proposal_Review

**Process
Date:**
01/31/2006

Status:
Awaiting Review

Assistant Technical Representative (ATR) MICHAEL D BLAU	<input checked="" type="checkbox"/> Signature MICHAEL D BLAU	Date 01/04/2006 04:58 PM	Org Code 582.0	Phone (301)286- 7880
Branch Head RAYMOND WHITLEY	<input checked="" type="checkbox"/> Signature RAYMOND WHITLEY	Date 01/04/2006 06:09 PM	Org Code 582.0	Phone (301)286- 6404
Contract Resource Analyst MARGARET S PAVLINIC I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.	<input checked="" type="checkbox"/> Signature MARGARET S PAVLINIC	Date 01/05/2006 01:05 PM	Org Code 501.0	Phone (301)286- 4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 01/31/2006 06:31 PM	Org Code 590.0	Phone (301)286- 3775
Contract Specialist (CSp) MELISSA L MOORE	<input checked="" type="checkbox"/> Signature MELISSA L MOORE	Date 01/10/2006 01:57 PM	Org Code 210.M	Phone (301)286- 4240
Contracting Officer (CO) RAY JAMES SISNEROS	<input checked="" type="checkbox"/> Signature RAY JAMES SISNEROS	Date 01/10/2006 06:07 PM	Org Code 210.M	Phone (301)286- 9083
Estimated Cost: \$300,000.00 Cost Estimate File Attached: No		Work Performed On-Site: All		
Funding Information: 342556.06.01.09.01 (2006)		Government Furnished Property/Facilities: No		

Task Background Attached: Yes

Contractor will develop specification or statement of work under this task for a future procurement: No

Deliver To: MICHAEL D BLAU , Code 580.0, Bldg , Room

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the

- estimated labor hours and costs to perform the order.
- 2 Implementation Plan This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal.
 - 3 Miscellaneous Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.



Funding

Job Order Number/WBS Element

342556.06.01.09.01

Fiscal Year/Fund

2006

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			



Statement of Work

Item Description	
1 C&DH Diagnostics Software	
Performance Requirements	Delivery Schedule:
Provide support for LRO C&DH Diagnostics and hardware testing according to the attached	18 Month(s)

statement of work.	
Statement of Work Documents	Comment
 SOW for METS 144.doc	SOW for task 144



Task Order Documents

 144_Task_Background_2609-0.doc Comment: Background for task 144



Process Task Order	Approve	Disapprove
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Return to List	Contract	View/Process
Edit Task Header	Proposal Instructions	Funding
Statement of Work	Cancel Task Order	
Property/GFE	Task Order Docs	Proposal
Cost Evaluation	<input checked="" type="checkbox"/> Section	

Contract: Multidisciplinary
Engineering and Technical Services
(METS)

Contract Num:
NNG05CA99C

Period: 02/05/2005
- 02/04/2010

Task Num/Mod

Num: 146/0
(Technical)

Title: LRO GDS Support

Task Period: 01/23/2006 -
09/30/2006 *Adjust?*

Flight: Non-Flight

Process Stage:
CSp_Proposal_Review

Process Date: 02/10/2006
Status: Awaiting Review

Assistant Technical Representative (ATR) KENNETH J MCCAUGHEY	<input checked="" type="checkbox"/> Signature KENNETH J MCCAUGHEY	Date 01/17/2006 11:34 AM	Org Code 596.0	Phone (301)286- 7769
Branch Head CHARLES E CLAGETT	<input checked="" type="checkbox"/> Signature CHARLES E CLAGETT	Date 01/18/2006 02:03 PM	Org Code 596.0	Phone (301)286- 2438
Contract Resource Analyst MARGARET S PAVLINIC I hereby verify that the government cost estimate accompanied with this PR complies with GPG 5100.5.	<input checked="" type="checkbox"/> Signature MARGARET S PAVLINIC	Date 01/19/2006 04:52 PM	Org Code 501.0	Phone (301)286- 4216
Contracting Officer Technical Rep. (COTR) WALTER T FLOURNOY	<input checked="" type="checkbox"/> Signature WALTER T FLOURNOY	Date 02/10/2006 07:12 PM	Org Code 590.0	Phone (301)286- 3775
Contract Specialist (CSp) MELISSA L MOORE	<input checked="" type="checkbox"/> Signature MELISSA L MOORE	Date 01/23/2006 01:50 PM	Org Code 210.M	Phone (301)286- 4240
Contracting Officer (CO) RAY JAMES SISNEROS	<input checked="" type="checkbox"/> Signature RAY JAMES SISNEROS	Date 01/24/2006 02:56 PM	Org Code 210.M	Phone (301)286- 9083
Estimated Cost: \$300,000.00 Cost Estimate File Attached: No		Work Performed On-Site: Partial		
Funding Information: 342556.06.01.06.04 (ESAX22006D)		Government Furnished Property/Facilities: No		

Task Background Attached: Yes

Contractor will develop specification or statement of work under this task for a future procurement: No

Deliver To: KENNETH J MCCAUGHEY , Code 596.0, Bldg , Room

Proposal Instructions

Item	Document Type	Document Description
1	Cost Estimate	This document should include an estimated cost and maximum available award fee for the proposed task order, including breakouts of the estimated labor hours and costs to perform the

- order.
- 2 **Implementation Plan** This document should include the technical approach, period of performance, additional cost information, and any other information required to determine the reasonableness of the Contractors proposal.
 - 3 **Miscellaneous** Do Not Delete! This category is for the vendors use. It is the vendors only avenue to attach additional documents to best convey their proposal.



Funding

Job Order Number/WBS Element
342556.06.01.06.04

Fiscal Year/Fund
ESAX22006D

Allotment Date	Estimated Cost	Award Fee	Total Cost	PR Number	Updated By	Last Update
Total Funding	\$0.00	\$0.00	\$0.00			



Statement of Work

Item Description	
1 Update GDS component card drawing packages	
Performance Requirements	Delivery Schedule:
Update GDS component schematics, bill of materials, and layouts, as required, based on redlines provided by Code 596.	6 Month(s)

Item Description**2 Procure parts**

Performance Requirements	Delivery Schedule:
Procure parts (with spares) for the GDS component cards.	9 Month(s)

Item Description**3 Develop test procedures**

Performance Requirements	Delivery Schedule:
Develop and/or modify existing card test procedures as required.	9 Month(s)

Item Description**4 Fabrication and test**

Performance Requirements	Delivery Schedule:
Fabricate electronic assemblies per delivery schedule supplied by Code 596. Note that some cards may only be partially populated per Code 596 direction. Perform a limited functional test to verify assembly workmanship.	9 Month(s)
Statement of Work Documents	Comment
 LRO GDS Support Task deliveries.doc	Delivery schedule

Item Description**5 Configuration management**

Performance Requirements	Delivery Schedule:
Support configuration management of drawings and documents generated in this task. The deliverable for this item is a monthly progress report.	9 Month(s)



Task Order Documents

 146_Task_Background_2620-0.doc Comment: None



Process Task Order	Approve	Disapprove
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