SOLICITATION, OFFER AND AWARD	1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 350)	RATING	PAGE
		DO-C9	1 OF 378

2. CONTRACT NO.	3. SOLICITATION NO.	4. TYPE OF SOLICITATION	5. DATE ISSUED	6. REQUISITION/PURCHASE NO.
NNM12AA41C	NNM11386243R	☐ SEALED BID (IFB) ☒ NEGOTIATED (RFP)	See Block 28	4200386243

7. ISSUED BY	CODE	MDP	8. ADDRESS OFFER TO *(If other than Item 7)*
National Aeronautics & Space Administration George C. Marshall Space Flight Center Office of Procurement Marshall Space Flight Center, AL 35812			NASA/Marshall Space Flight Center Attn: PS20/Emeterio V. Hernandez Marshall Space Flight Center, AL 35812 Deliver to: Building 4203 Basement, Elevator Lobby Area (256) 544-9605

NOTE: In sealed bid solicitations "Offer" and "Offeror" means "bid" and "bidder"

SOLICITATION

9. Sealed offers for furnishing the supplies or services in the Schedule will be received at the place specified in Item 8, or if hand carried, in the depository located in **Building 4203 Basement, Elevator Lobby Area** until **12:00 noon** local time, on **April 4, 2012**. **(see Request for Final Proposal Revision letter dated 3/28/12)**

CAUTION - LATE Submissions, Modifications, and Withdrawals: See Section L, Provision No. 52.214-7 or 52.215-1. All offers are subject to all terms and conditions contained in this solicitation.

10. FOR INFORMATION CALL:	A. NAME	B. TELEPHONE NO. *(NO COLLECT CALLS)* AREA CODE	NUMBER	EXT.	C. EMAIL ADDRESS
	Emeterio V. Hernandez	**(256)**	**544-9605**	**N/A**	**Emeterio.V.Hernandez@nasa.gov**

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OFFER *(Must be fully completed by Offeror)*

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

12. In compliance with the above, the undersigned agrees, if this offer is accepted within **180** calendar days *(60 calendar days unless a different period is inserted by the Offeror) from* the date for receipt of offers specified above, to furnish any or all items upon which prices are offered at the price set opposite each item, delivered at the designated point(s), within the time specified in the schedule.

13. DISCOUNT FOR PROMPT PAYMENT *(See Section I, clause No. 52-232-8)*	10 CALENDAR DAYS %	20 CALENDAR DAYS %	30 CALENDAR DAYS %	CALENDAR DAYS %

14. ACKNOWLEDGMENT OF AMENDMENTS *(The Offeror acknowledges receipt of amendments to the SOLICITATION).*	AMENDMENT NO	DATE	AMENDMENT NO	DATE
For Offerors and related documents numbered and dated:	01	07/11/2011	02	07/18/2011
	03	02/17/2012	04	03/28/2012

15. NAME AND ADDRESS OF OFFEROR	CODE	07486	FACILITY	16. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER *(Type or print)*
	Jacobs Technology Inc. 600 William Northern Blvd., P.O. Box 884 Tullahoma, TN 37388			**Rogers F. Starr, President**

15B. TELEPHONE NO. *(Include area code)*	15C. CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE – ENTER	17. SIGNATURE	18. OFFER DATE
(931)455-6400	☒ SUCH ADDRESS IN SCHEDULE	Rogers F. Starr	April 4, 2012

AWARD *(To be completed by Government)*

19. ACCEPTED AS TO ITEMS NUMBERED	20. AMOUNT	21. ACCOUNTING AND APPROPRIATION
	$255,600,000	See Page A-2

22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION	23. SUBMIT INVOICES TO ADDRESS SHOWN IN: *(4 copies unless otherwise specified)*	ITEM
☐ 10 U.S.C. 2304(c) ( ) ☐ 41 U.S.C. 253(c) ( )		Clause G.2

24. ADMINISTERED BY *(If other than Item 7)*	CODE	25. PAYMENT WILL BE MADE BY	CODE
		See Clause G.2	NSSC

26. NAME OF CONTRACTING OFFICER *(Type or print)*	27. UNITED STATES OF AMERICA *(Signature of Contracting Officer)*	28. AWARD DATE
David A. Iosco	David A. Iosco	5/29/2012

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

NSN 7540-01-152-8064
PREVIOUS EDITION NOT USABLE

33-133

STANDARD FORM 33 (REV. 9-97)
Prescribed by GSA
FAR (48 CFR) 53.214(c)

APPROVED:
PROCUREMENT OFFICER

Continuation of Standard Form 33

Mod	PR	WBS	Cost Center	Fund	Amount	Subelement	PLI_ALI
Basic	**4200386243**	411672.06.04.01	62ZP22	SCEX22012D	$47,000.00		1-010
Basic	**4200386243**	585777.02.02.01.01.10	62ED01	EXPX22012D	$300,000.00		1-020
Basic	**4200386243**	585777.04.70.01.62	62ED01	EXPX22012D	$10,000.00		1-030
Basic	**4200386243**	585777.09.60.01.62	62ED01	EXPX22012D	$5,000.00		1-040
Basic	**4200386243**	585777.08.50.01.62	62ED01	EXPX22012D	$20,000.00		1-050
Basic	**4200386243**	585777.01.01.03	62ED01	EXPX22012D	$50,000.00		1-060
Basic	**4200386243**	585777.08.30.01.62.01	62ED01	EXPX22012D	$100,000.00		1-070
Basic	**4200386243**	645454.01.08.05	62ER33	SPTX22012D	$61,845.00		1-080
Basic	**4200386243**	432938.08.01.08.09.03	62ER41	CASX12012D	$10,000.00		1-090
Basic	**4200386243**	921179.01.08.11.ER95.12	62ER41	CASX12012R	$19,923.00		1-100
Basic	**4200386243**	432938.08.01.08.09.03	62ER43	CASX12012D	$31,795.00		1-110
Basic	**4200386243**	736466.05.01.08.20.01	62ET01	CASX12012D	$150,000.00		1-120
Basic	**4200386243**	585777.02.33	62ET02	EXPX22012D	$40,000.00		1-130
Basic	**4200386243**	750271.09.01.08	62ET10	EXCX22012D	$117,000.00		1-140
Basic	**4200386243**	359257.01.02.01	62ET20	CASX12012D	$20,000.00		1-150
Basic	**4200386243**	585777.02.33	62ET20	EXPX22012D	$54,000.00		1-160
Basic	**4200386243**	585777.02.33	62ET30	EXPX22012D	$55,000.00		1-170
Basic	**4200386243**	432938.09.01.08.12.06	62ET40	CASX12012D	$40,000.00		1-180
Basic	**4200386243**	813188.01.08.04	62ET50	SPTX22012D	$35,000.00		1-190
Basic	**4200386243**	378710.05.02	62ZP21	SCEX22012D	$65,304.00		1-200
Basic	**4200386243**	397424.07.02.03.22	62ZP20	SCEX22012D	$6,250.00		1-210
Basic	**4200386243**	397424.07.02.01.04	62ZP20	SCEX22012D	$2,534.00		1-220
Basic	**4200386243**	432938.11.01.08.40	62EM10	CASX12012D	$100,000.00		1-230
Basic	**4200386243**	585777.04.70.04.04.04	62EM32	EXPX22012D	$56,000.00		1-240
Basic	**4200386243**	585777.08.10.35	62ED01	EXPX22012D	$60,000.00		1-250
Basic	**4200386243**	585777.08.20.01.35	62ED01	EXPX22012D	$105,000.00		1-260
				Total	**$1,561,651.00**		

PART I – THE SCHEDULE

SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS

B.1 SUPPLIES AND/OR SERVICES TO BE FURNISHED AND TYPE OF CONTRACT.

(a) The Contractor shall provide all resources (except as may be expressly stated in this contract as furnished by the Government) necessary to deliver and/or perform the services in accordance with Attachment J-1, *Performance Work Statement* (PWS).

(b) This is a performance-based cost-reimbursement fixed-fee less deductions, Indefinite Delivery, Indefinite Quantity (IDIQ) type contract. Fee deductions will be evaluated as described in Attachments J-3, *Surveillance and Fee Evaluation Plan*, Attachment J-4, *Quality Performance Quarterly Survey*, and Attachment J-5, *Performance Standards* of this contract. Work will be authorized via Task Orders (TOs) by the Contracting Officer (CO) which will be incorporated into Clause B.2, *Estimated Cost and Fixed Fee Less Deductions* by periodic contract modification. (See Clause H.6, *Supplemental Task Ordering Procedures*)

(c) The minimum and maximum quantity value for each contract period is specified in the following table:

	Minimum Quantity		Maximum Quantity	
Contract Periods	**Estimated Cost**	**Potential Fixed Fee**	**Estimated Cost**	**Potential Fixed Fee**
Base (Yr 1)	$10,000,000	(b)(4)	$120,000,000	(b)(4)
Base (Yr 2)	$10,000,000		$120,000,000	
Base Total	$20,000,000		$240,000,000	
Option 1 (Yr 3)	$10,000,000		$120,000,000	
Option 2 (Yr 4)	$10,000,000		$120,000,000	
Option 3 (Yr 5)	$10,000,000		$120,000,000	
Total Potential	$50,000,000		$600,000,000	

*To Be Proposed (TBP) by Offeror.

(d) Notwithstanding the minimum quantity specified above, the Government's obligation for payment is limited to the minimum quantity potential fixed fee for that contract year and the amount of incurred allowable costs up to the funds obligated under Clause B.3, 1852.232-81, *Contract Funding*. Once the total potential minimum quantity for the contract has been met, there is no further Government obligation to order or make payment on a specific contract year minimum quantity including any option periods that have been exercised. Cost will be reimbursed in accordance with FAR Clause 52.216-7, *Allowable Cost and Payment* of the contract for the quantity ordered per FAR Part 31, and fee will be earned and paid in accordance with Clause B.5, *Evaluation of Fee Deductions*.

(e) Unused maximum order quantity from any contract period may be rolled over to subsequent contract periods.

(f) Government orders for services in quantities specified above the minimum and below the maximum shall not constitute a basis for price adjustments.

(g) The award of this IDIQ contract does not inhibit the Government's right to later award separate contracts for similar or related services.

(End of clause)

B.2 ESTIMATED COST AND FIXED FEE LESS DEDUCTIONS.

(a) The estimated cost of this contract is $ [See Below]*. The potential fixed fee is $ [See Below]*. Total estimated cost and potential fixed fee (Total Task Order Value) are $ [See Below]*.

**In accordance with Clause H.6, Supplemental Task Ordering Procedures, these values are based on the summation of all the individual Task Orders and are reflected in paragraph (b) below.*

(b) Task Order summation by contract year and evaluation period of Total Estimated Cost, Total Potential Fixed Fee, Total Fixed Fee Less Deduction, Total Task Order Value:

Summation of Task Orders

****Period Covered**	**Total Estimated Cost**	**Total Potential Fixed Fee**	**Total Fixed Fee Less Deductions**	**Total Task Order Value**
Base (Year 1)				
Fee Period 1				
Fee Period 2				
Base (Year 2)				
Fee Period 3				
Fee Period 4				
Option 1 (Year 3)				
Fee Period 5				
Fee Period 6				
Option 2 (Year 4)				
Fee Period 7				
Fee Period 8				
Option 3 (Year 5)				
Fee Period 9				
Fee Period 10				
TOTALS				

TO BE COMPLETED AFTER CONTRACT AWARD

** 6-month evaluation periods

(End of clause)

B.3 1852.232-81 CONTRACT FUNDING. (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 **$1,561,651**. This allotment is for Engineering and Science Services and Skills Augmentation (ESSSA) and covers the following estimated period of performance: **August 1, 2012** through **August 10, 2012**.

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

(c) Recapitulation of funding is as follows:

	Previous	This Action	Total
Estimated Cost	$0	$1,561,651	$1,561,651
Earned Fixed Fee	$0	$0	$0
Total Sum Allotted	$0	$1,561,651	$1,561,651

(End of clause)

B.4 MSFC 52.222-90 PREMIUMS FOR SCHEDULED OVERTIME. (FEB 2001)

(a) Pursuant to the clause entitled "Payment for Overtime Premiums," the amount of overtime premium authorized shall not exceed the amount specified below for the indicated period.

Period	Amount*
Base (Year 1)	$ TBD
Base (Year 2)	$ TBD
Option 1 (Year 3)	$ TBD
Option 2 (Year 4)	$ TBD
Option 3 (Year 5)	$ TBD

*To Be Completed After Award.

(b) Any overtime premium shall be specified in individual Task Orders. The amounts above reflect a summation of the amounts specified in the Task Orders and will be updated by modification periodically.

(End of clause)

B.5 EVALUATION OF FEE DEDUCTIONS.

(a) This contract is performance-based and provides for deduction from the fixed fee based upon defined performance levels in Attachment J-3, *Surveillance and Fee Evaluation Plan* and Attachment J-5, *Performance Standards*. The Contractor's *Financial Management Report (533M)* (DRD 1390MA-007), *Task Order Activity Reports* (DRD 1390MA-005), *Contractor's Self-Assessment Report* (DRD 1390MA-006), and Attachment J-4, *Quality Performance Quarterly Survey*, will be used to assess the Contractor's performance and determine any fee deductions.

(b)(1) Provisional fixed fee payments will be made under this contract pending the determination of the amount of fee deductions for an evaluation period. If applicable, provisional fixed fee payments will be made to the Contractor on a monthly basis. The total amount of fixed fee available in an evaluation period that will be provisionally paid is the lesser of 50% of the total potential fixed fee or the prior period's fixed fee less deductions.

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

(3) If the Contracting Officer determines that the Contractor will not achieve a level of performance commensurate with the provisional rate, payment of provisional fixed 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 fixed fee payments will be made on a monthly basis.

(c) Beginning 6 months after the effective date of this contract and every 6 months thereafter, the Government will evaluate the Contractor's performance to determine the amount of deductions to the fixed fee during that period. The Government will determine the fixed fee deduction amounts based on the Contractor's performance in accordance with Attachment J-3, *Surveillance and Fee Evaluation Plan* and Attachment J-5, *Performance Standards*.

(d) The Government will advise the Contractor in writing of the evaluation results. The NASA Shared Services Center (NSSC), or designated billing office, will make payment based on receipt of a modification to the contract, which incorporates the total fixed fee less any deductions and submission of a voucher in accordance with Clause G.2, 1852.216-87 *Submission of Vouchers for Payment*.

(e) After 85% of the potential fixed fee has been paid, the Contracting Officer may direct the withholding of further payment of fixed 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% of the total potential fixed fee.

(f) The total potential fixed fee which may be paid in each evaluation period is limited to the amounts set forth in Clause B.2, *Estimated Cost and Fixed Fee Less Deductions*. Deductions to the potential fixed fee which are subtracted from the fixed fee in an evaluation period cannot be reallocated to future evaluation periods.

(g) Fixed fee deduction determinations are unilateral decisions made solely at the discretion of the Government. The Contractor will be notified after each period by the Contracting Officer of the deductions from fee, if any, and the total fee determination.

(h) It is mutually agreed and understood that this clause is an implementation of FAR Clause 52.216-8, *Fixed Fee*. Any withholding of payment of fee or deductions to the *Fixed Fee* pursuant to this clause are in addition to those set forth in Clause 52.216-8, *Fixed Fee*. Further, this clause does not limit the Government's right to withhold payment of fee as set forth in Clause 52.216-8, *Fixed Fee* or any other clause of this contract.

(End of clause)

B.6 CONTRACT EXTENSION RESULTING FROM PROTESTS.

If the award of a successor contract to perform the services being performed under this contract is delayed because of a protest, the Contracting Officer may extend the period of performance on this contract to cover any delay caused by such protest. The Contractor shall be entitled to an equitable adjustment for such an extension.

(End of clause)

B.7 CONTRACTOR INNOVATIONS, CORPORATE CAPITAL INVESTMENTS, APPROACHES, AND ADVANCE AGREEMENTS

The innovations, corporate capital investments, approaches, and advance agreements proposed by the contractor and accepted by the Government as part of the ESSSA competitive acquisition are hereby incorporated as Appendix A to the Performance Work Statement. The Contractor shall status these items in each submission of DRD 1390MA-006, *Contractor Self-Assessment Report*.

(End of Clause)

[END OF SECTION]

SECTION C - DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK

C.1 MSFC 52.211-93 DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK. (FEB 2001)

The Description/Specifications/Statement of Work is Attachment J-1, *Performance Work Statement* (PWS).

(End of clause)

C.2 EXCLUDED FUNCTIONS AND RESPONSIBILITIES.

(a) Functions and responsibilities directly involved or associated with the management of any MSFC organizations are expressly excluded from this contract. The Contractor shall provide a secondary review of all assigned activities such that no inherently Governmental functions are performed by the Contractor, and if directed to do so, the Contractor shall immediately notify the Contracting Officer. The Contractor is referred to FAR Part 7.5, *Inherently Governmental Functions*.

(b) The following activities are representative of the excluded functions and responsibilities that cannot be provided by the Contractor for the Government:

(1) Policymaking or management of MSFC operations;

(2) Program or project management;

(3) Technical management of Government contracts;

(4) Direction or supervision of other Government Contractors or Government agencies, or otherwise acting as an agent to obligate or commit MSFC in any capacity; and

(5) Supervision of Government employees.

(c) As a result of the close working proximity between Contractor personnel and NASA Civil Servants, the Contractor shall adhere to the following ground rules in performance of the effort as delineated in Attachment J-1, *Performance Work Statement*:

(1) The Contractor shall ensure that its employees are managed by its own Contractor management, and that the Contractor management has the autonomy to deal effectively with their employees and implement corporate policies.

(2) The Contractor shall ensure that office space occupied by their personnel is clearly labeled with the name of the company.

(3) The Contractor shall ensure, to the extent practicable, that correspondence signed by Contractor employees is on company letterhead.

(4) The Contractor shall ensure that their on-site personnel, when receiving or placing telephone calls, identify their employer, in addition to whatever appropriate greeting is used.

(5) The Contractor, when participating in meetings with Government and/or other Contractor employees, shall ensure that their personnel identify themselves as Contractor employees so that their actions will not be construed as acts of Government officials.

(6) The Contractor's management staff shall perform individual job performance evaluations on all Contractor personnel in support of this effort.

(End of clause)

[END OF SECTION]

SECTION D - PACKAGING AND MARKING

D.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE.

1852.211-70 Packaging, Handling, and Transportation. (SEP 2005)

(End of clause)

[END OF SECTION]

SECTION E - INSPECTION AND ACCEPTANCE

E.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE.

52.246-3	Inspection of Supplies - Cost-Reimbursement. (May 2001)
52.246-5	Inspection of Services - Cost-Reimbursement. (Apr 1984)

(End of clause)

E.2 52.246-11 HIGHER-LEVEL CONTRACT QUALITY REQUIREMENT. (FEB 1999)

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

Title	Number	Date
Marshall Quality Management System Manual	MPD 1280.1	Latest Issue

(End of clause)

E.3 1852.246-71 GOVERNMENT CONTRACT QUALITY ASSURANCE FUNCTIONS. (OCT 1988)

In accordance with the inspection clause of this contract, the Government intends to perform the following functions at the locations indicated:

Item	Quality Assurance Function	Location
All	Final Inspection & Acceptance	MSFC, Huntsville, AL

(End of clause)

E.4 1852.246-72 MATERIAL INSPECTION AND RECEIVING REPORT. (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 three (3) copies, an original and two (2) copies.

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

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

(End of clause)

E.5 CHANGES TO HIGHER-LEVEL CONTRACT QUALITY REQUIREMENTS.

It is mutually agreed and understood that the Government may unilaterally update Clause E.2, 52.246-11 *Higher-Level Contract Quality Requirement*, with future versions and require full compliance to the latest requirements. Such action shall not give rise to an equitable adjustment to the estimated contract value, including both cost and fixed fees, or any other expressed terms and conditions of this contract.

(End of clause)

[END OF SECTION]

SECTION F - DELIVERIES AND PERFORMANCE

F.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE.

52.242-15	Stop-Work Order. (Aug 1989) - Alternate I (Apr 1984)
52.247-34	F.o.b. Destination. (Nov 1991)

(End of clause)

F.2 PERIOD OF PERFORMANCE.

(a) The period of performance of this contract is from **8/1/2012** to **7/31/2014**.

(b) In the event the Government elects to exercise its option(s) pursuant to the terms of this contract, the period of performance for each option shall be as set forth below:

Period	Period of Performance
Option 1	8/1/2014 – 7/31/2015
Option 2	8/1/2015 – 7/31/2016
Option 3	8/1/2016 – 7/31/2017

(End of clause)

F.3 MSFC 52.237-91 PLACE OF PERFORMANCE. (FEB 2001)

The Contractor shall perform the work under this contract at the following location(s): Marshall Space Flight Center, Huntsville, AL and at such other locations that may be approved in writing by the Contracting Officer. The Contractor's management staff shall be located offsite.

(End of clause)

F.4 SPECIAL CONDITIONS APPLICABLE TO EXERCISE OF OPTIONS 1, 2, AND 3.

(a) Option Decision Package

Eleven (11) months prior to the effective date of Options 1, 2 (if Option 1 is exercised), and 3 (if Option 2 is exercised), the Contractor shall prepare and submit an *Option Decision Package* to the Contracting Officer in accordance with DRD 1390CD-001. The *Option Decision Package* shall specifically address the decision considerations listed in (b)(2) below and any additional information requested by the Contracting Officer. A request for additional information to be included in the *Option Decision Package* will be made in writing by the Contracting Officer at least fourteen (14) calendar days before the due date of the package.

(b) Option Decision Considerations

The Government will consider the following decision points (applicable to all option periods) in making a determination to exercise an option pursuant to Clause 52.217-9, *Option to Extend the Term of the Contract:*

(1) The quality of the Contractor's performance relative to the service level standards and acceptable performance levels set forth in Attachments J-3, *Surveillance and Fee Evaluation Plan* and J-5, *Performance Standards*.

(2) The quality of the Contractor's performance as evaluated by the Government for submission into the Contractor Performance Assessment Reporting System (CPARS). Areas of evaluation include the following: quality of product or service, schedule, cost control, business relations, management of key personnel, and other areas (i.e., safety, property).

(3) Independent market research conducted by the Government.

(4) Any other consideration, such as those required by FAR Part 17, that may be determined to be significant by the Government including, but not limited to, availability of funding and need for the continuation of the services.

(c) Decision to Exercise Options or Continue Services

The decision to exercise any option will be solely at the discretion of the Government. The decision to exercise Options 1, 2 and 3 will require approval by appropriate levels of NASA management prior to issuance of a modification exercising any option. This clause does not limit the Government's rights relative to any other clause included in this contract.

(End of clause)

F.5 PHASE-IN PURCHASE ORDER (PO) AND PHASE-OUT.

(a) Contractor Phase-In

(1) The services provided by this contract are vital to the Government's overall effort. Therefore, continuity of these services must be maintained at a consistently high level without disruption. To this end, the Contractor shall conduct an orderly Phase-In of contract activities prior to assumption of responsibility for the effort described in the PWS. These Phase-In activities are to be performed under a separate Phase-In purchase order and all costs associated with Phase-In are not allowable in this contract.

(2) The Contractor shall participate in meetings with the predecessor Contractor to identify and discuss problems or areas requiring attention during the Phase-In period.

(3) The Contractor shall perform all activities described in the Contractor's Phase-In Plan submitted with its proposal, and all activities necessary to ensure effective transfer of all effort from the predecessor Contractor(s) and readiness to assume full contract performance. As part of Phase-In activities, the contractor shall provide the following: (1) *Management Plan* (see DRD 1390MA-001); (2) *Work Breakdown Structure (WBS) & WBS Dictionary* (see DRD 1390MA-004); (3) *Weekly Contract Status Briefing* (see DRD 1390MA-009); and (4) *Contractor Personnel Certification Plan* (see DRD 1390SA-002).

(4) The Contractor shall provide the qualified staff, badged (in accordance with Attachment J-16, *Personal Identity Verification (PIV) Procedures*), and ready to assume performance.

(5) The Automated Task Order Management Systems (ATOMS) specified in PWS paragraph 2.4.1 shall be ready for Government use thirty (30) days prior to contract commencement. The associated user's guide and Government training shall also be available at this time.

(6) Initial Task Order Requests (TOR) shall be processed using the ATOMS in accordance with PWS paragraph 2.4. Task Order Plans (TOPs) shall be developed and submitted in accordance with Clause H.5, *1852.216-80 Task Ordering Procedure* and Clause H.6, *Supplemental Task Ordering Procedures*. Task Orders (TOs) shall be processed and effective on the first day of the contract period of performance.

(b) Contractor Phase-Out

(1) Prior to contract completion, a successor Contractor(s) may be selected to perform the work requirements covered by the PWS. The Contractor shall conduct an orderly Phase-Out of all required activities prior to completion of this contract and assumption of responsibility for the effort described in the PWS by a successor Contractor(s). The Contractor shall remain responsible for the effort covered by the PWS during Phase-Out activities.

(2) Upon written notice by the Contracting Officer prior to the contract completion date, the Contractor shall conduct Phase-Out activities for up to ninety (90) calendar days in accordance with FAR Clause, 52.237-3 *Continuity of Services*.

(End of clause)

[END OF SECTION]

SECTION G - CONTRACT ADMINISTRATION DATA

G.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE.

1852.227-70	New Technology. (May 2002)
1852.227-86	Commercial Computer Software - Licensing. (Dec 1987)
1852.242-71	Travel Outside of The United States. (Dec 1988)
1852.242-73	NASA Contractor Financial Management Reporting. (Nov 2004)
1852.245-73	Financial Reporting of NASA Property in the Custody of Contractors. (Jan 2011)

(End of clause)

G.2 1852.216-87 SUBMISSION OF VOUCHERS FOR PAYMENT. (MAR 1998)

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

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

NASA Shared Services Center (NSSC)
Financial Management Division (FMD) - Accounts Payable
Building 1111, C. Road
Stennis Space Center, MS 39529

Email: NSSC-AccountsPayable@nasa.gov
Fax: (866) 209-5415

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

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

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

(1) One original Standard Form (SF) 1034, SF 1035, or equivalent Contractor's attachment to: through the Contractor’s cognizant DCAA office to the NASA paying office identified in Paragraph (b)(1).

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

(i) Copy 1 NASA Contracting Officer

(ii) Copy 2 Auditor

(iii) Copy 3 Contractor

(iv) Copy 4 Contract administration office; and

(v) Copy 5 Project management office.

(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: to the address specified in paragraph (b)(1). This is the designated billing office for fee vouchers for purposes of the Prompt Payment clause of this contract. A copy of all fee vouchers shall be provided concurrently to the Contracting Officer.

(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.3 1852.227-72 DESIGNATION OF NEW TECHNOLOGY REPRESENTATIVE AND PATENT REPRESENTATIVE. (JUL 1997)

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

New Technology Representative

NASA/George C. Marshall Space Flight Center
Attn: ED10/New Technology Representative
Marshall Space Flight Center, AL 35812

Patent Representative

NASA/George C. Marshall Space Flight Center
Attn: LS01/Chief Intellectual Property Counsel
Marshall Space Flight Center, AL 35812

(b) Reports of reportable items, and disclosure of subject inventions, interim reports, final reports, utilization reports, and other reports required by the clause, as well as any correspondence with respect to such matters, should be directed to the New Technology Representative unless transmitted in response to correspondence or request from the Patent Representative. 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.4 1852.242-70 TECHNICAL DIRECTION. (SEP 1993)

(a) Performance of the work under this contract is subject to the written technical direction of the Contracting Officer Technical Representative (COTR), who shall be specifically appointed by the Contracting Officer in writing in accordance with NASA FAR Supplement 1842.270, *Contracting Officer Technical Representative (COTR) Delegations*. "Technical direction" means a directive to the Contractor that approves approaches, solutions, designs, or refinements; fills in details or otherwise completes the general description of work or documentation items; shifts emphasis among work areas or tasks; or furnishes similar instruction to the Contractor. Technical direction includes requiring studies and pursuit of certain lines of inquiry regarding matters within the general tasks and requirements in Section J-1 of this contract.

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

(1) Constitutes an assignment of additional work outside the statement of work;

(2) Constitutes a change as defined in the changes clause;

(3) Constitutes a basis for any increase or decrease in the total estimated contract cost, the fixed fee (if any), or the time required for contract performance;

(4) Changes any of the expressed terms, conditions, or specifications of the contract; or

(5) Interferes with the contractor's rights to perform the terms and conditions of the contract.

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

(d) The Contractor shall proceed promptly with the performance of technical direction duly issued by the COTR in the manner prescribed by this clause and within the COTR's authority. If, in the Contractor's opinion, any instruction or direction by the COTR falls within any of the categories defined in paragraph (b) of this clause, the Contractor shall not proceed but shall notify the Contracting Officer in writing within 5 working days after receiving it and shall request the Contracting Officer to take action as described in this clause. Upon receiving this notification, the Contracting Officer shall either issue an appropriate contract modification within a reasonable time or advise the Contractor in writing within 30 days that the instruction or direction is -

(1) Rescinded in its entirety; or

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

(e) A failure of the contractor and contracting officer to agree that the instruction or direction is both within the requirements of the contract and does not constitute a change under the

changes clause, or a failure to agree upon the contract action to be taken with respect to the instruction or direction, shall be subject to the Disputes clause of this contract.

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

(End of clause)

G.5 1852.245-70 CONTRACTOR REQUESTS FOR GOVERNMENT-PROVIDED EQUIPMENT. (JAN 2011) ALTERNATE I (JAN 2011)

(a) The Contractor shall provide all property required for the performance of this contract. The Contractor shall not acquire or construct items of property to which the Government will have title under the provisions of this contract without the Contracting Officer's written authorization. Property which will be acquired as a deliverable end item as material or as a component for incorporation into a deliverable end item is exempt from this requirement. Property approved as part of the contract award or specifically required within the statement of work is exempt from this requirement.

(b)(1) In the event the Contractor is unable to provide the property necessary for performance, and the Contractor requests provision of property by the Government, the Contractor's request shall -

(i) Justify the need for the property;

(ii) Provide the reasons why contractor-owned property cannot be used;

(iii) Describe the property in sufficient detail to enable the Government to screen its inventories for available property or to otherwise acquire property, including applicable manufacturer, model, part, catalog, National Stock Number or other pertinent identifiers;

(iv) Combine requests for quantities of items with identical descriptions and estimated values when the estimated values do not exceed $100,000 per unit; and

(v) Include only a single unit when the acquisition or construction value equals or exceeds $100,000.

(2) Contracting Officer authorization is required for items the Contractor intends to manufacture as well as those it intends to purchase.

(3) The Contractor shall submit requests to the Contracting Officer no less than 30 days in advance of the date the Contractor would, should it receive authorization, acquire or begin fabrication of the item.

(c) The Contractor shall maintain copies of Contracting Officer authorizations, appropriately cross-referenced to the individual property record, within its property management system.

(d) Property furnished from Government excess sources is provided as-is, where-is. The Government makes no warranty regarding its applicability for performance of the contract or its ability to operate. Failure of property obtained from Government excess sources under this

clause is insufficient reason for submission of requests for equitable adjustments discussed in the clause at FAR 52.245-1, *Government Property*, as incorporated in this contract.

(e) In the event the Contracting Officer issues written authorization to provide property, the Contractor shall screen Government sources to determine the availability of property from Government inventory or excess property.

(1) The Contractor shall review NASA inventories and other authorized Federal excess sources for availability of items that meet the performance requirements of the requested property.

(i) If the Contractor determines that a suitable item is available from NASA supply inventory, it shall request the item using applicable Center procedures.

(ii) If the Contractor determines that an item within NASA or Federal excess is suitable, it shall contact the Center Industrial Property Officer to arrange for transfer of the item from the identified source to the Contractor.

(2) If the Contractor determines that the required property is not available from inventory or excess sources, the Contractor shall note the acquisition file with a list of sources reviewed and the findings regarding the lack of availability. If the required property is available, but unsuitable for use, the contractor shall document the rationale for rejection of available property. The Contractor shall retain appropriate cross-referenced documentary evidence of the outcome of those screening efforts as part of its property records system.

(End of clause)

G.6 1852.245-71 INSTALLATION-ACCOUNTABLE GOVERNMENT PROPERTY. (JAN 2011)

(a) The Government property described in paragraph (c) of this clause may 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 unless authorized by the Contracting Officer under (b)(1)(iv). Under this clause, the Government retains accountability for, and title to, the property, and the Contractor shall comply with the following:

NASA Procedural Requirements (NPR) 4100.1, NASA Materials Inventory Management Manual;

NASA Procedural Requirements (NPR) 4200.1, NASA Equipment Management Procedural Requirements;

NASA Procedural Requirement (NPR) 4300.1, NASA Personal Property Disposal Procedural Requirements;

Property not recorded in NASA property systems must be managed in accordance with the requirements of the clause at FAR 52.245-1, as incorporated in this contract. The Contractor shall establish and adhere to a system of written procedures to assure continued, effective management control and compliance with these user responsibilities. In accordance with FAR 52.245-1(h)(1) the contractor shall be liable for property lost, damaged, destroyed or stolen by the contractor or their employees when determined responsible by a NASA Property Survey Board, in accordance with the NASA guidance in this clause.

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

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

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

(iii) The Contractor shall establish a record for Government titled property as required by FAR 52.245-1, as incorporated in this contract, and shall maintain that record until accountability is accepted by the Government.

(iv) Contractor use of Government property at an off-site location and off-site subcontractor use requires advance approval of the Contracting Officer and notification of the Industrial Property Officer. The property shall be considered Government furnished and the Contractor shall assume accountability and financial reporting responsibility. The Contractor shall establish records and property control procedures and maintain the property in accordance with the requirements of FAR 52.245-1, *Government Property* (as incorporated in this contract), until its return to the installation. NASA Procedural Requirements related to property loans shall not apply to offsite use of property by contractors.

(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) of this clause 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.

(c) The following property and services are provided if checked:

☒ (1) Office space, work area space, and utilities. Government telephones are available for official purposes only.

☒ (2) Office furniture.

☒ (3) Property listed in Attachment J-7.

(i) 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.

(ii) 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.

☒ (4) Supplies from stores stock.

☒ (5) Publications and blank forms stocked by the installation.

☒ (6) Safety and fire protection for Contractor personnel and facilities.

☐ (7) Installation service facilities: None.

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

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

☒ (10) Building maintenance for facilities occupied by Contractor personnel.

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

☒ (12) Access to the MSFC Wellness Center in accordance with membership requirements for Contractor employees.

(End of clause)

G.7 1852.245-74 IDENTIFICATION AND MARKING OF GOVERNMENT EQUIPMENT. (JAN 2011)

(a) The Contractor shall identify all equipment to be delivered to the Government using NASA Technical Handbook (NASA-HDBK) 6003, *Application of Data Matrix Identification Symbols to Aerospace Parts Using Direct Part Marking Methods/Techniques*, and NASA Standard (NASA-STD) 6002, *Applying Data Matrix Identification Symbols on Aerospace Parts* or through the use of commercial marking techniques that: (1) are sufficiently durable to remain intact through the typical lifespan of the property: and, (2) contain the data and data format required by the standards. This requirement includes deliverable equipment listed in the schedule and other equipment when no longer required for contract performance and NASA directs physical transfer to NASA or a third party. The Contractor shall identify property in both machine and human readable form unless the use of a machine readable-only format is approved by the NASA Industrial Property Officer.

(b) Equipment shall be marked in a location that will be human readable, without disassembly or movement of the equipment, when the items are placed in service unless such placement would have a deleterious effect on safety or on the item's operation.

(c) Concurrent with equipment delivery or transfer, the Contractor shall provide the following data in an electronic spreadsheet format:

(1) Item Description.

(2) Unique Identification Number (License Tag).

(3) Unit Price.

(4) An explanation of the data used to make the unique identification number.

(d) For equipment no longer needed for contract performance and physically transferred under paragraph (a) of this clause, the following additional data is required:

(1) Date originally placed in service.

(2) Item condition.

(e) The data required in paragraphs (c) and (d) of this clause shall be delivered to the NASA Center receiving activity listed below:

NASA, George C. Marshall Space Flight Center
MSFC Central Receiving - Building 4631
MSFC, AL 35812

(f) The contractor shall include the substance of this clause, including this paragraph (f), in all subcontracts that require delivery of equipment.

(End of clause)

G.8 1852.245-75 PROPERTY MANAGEMENT CHANGES. (JAN 2011)

(a) The Contractor shall submit any changes to standards and practices used for management and control of Government property under this contract to the assigned property administrator and Industrial Property Office (IPO) prior to making the change whenever the change –

(1) Employs a standard that allows increase in thresholds or changes the timing for reporting loss, damage, or destruction of property;

(2) Alters physical inventory timing or procedures;

(3) Alters recordkeeping practices;

(4) Alters practices for recording the transport or delivery of Government property; or

(5) Alters practices for disposition of Government property.

(b) The contractor shall contact the IPO at:

NASA-MSFC Industrial Property Officer
Mail Code: AS41
MSFC, AL 35812
(256) 544-5272

(End of clause)

G.9 1852.245-76 LIST OF GOVERNMENT PROPERTY FURNISHED PURSUANT TO FAR 52.245-1. (JAN 2011)

For performance of work under this contract, the Government will make available Government property identified below or in Attachment "not applicable" of this contract on a no charge-for-use basis pursuant to the clause at FAR 52.245-1, *Government Property*, as incorporated in this contract. The Contractor shall use this property in the performance of this contract at Marshall Space Flight Center, AL 35812 and at other location(s) as may be approved by the Contracting Officer. Under FAR 52.245-1, the Contractor is accountable for the identified property.

(End of clause)

G.10 1852.245-78 PHYSICAL INVENTORY OF CAPITAL PERSONAL PROPERTY. (JAN 2011)

(a) In addition to physical inventory requirements under the clause at FAR 52.245-1, *Government Property*, as incorporated in this contract, the Contractor shall conduct annual physical inventories for individual property items with an acquisition cost exceeding $100,000.

(1) The Contractor shall inventory –

(i) Items of property furnished by the Government;

(ii) Items acquired by the Contractor and titled to the Government under the clause at FAR 52.245-1;

(iii) Items constructed by the Contractor and not included in the deliverable, but titled to the Government under the clause at FAR 52.245-1; and

(iv) Complete but undelivered deliverables.

(2) The Contractor shall use the physical inventory results to validate the property record data, specifically location and use status, and to prepare summary reports of inventory as described in paragraph (c) of this clause.

(b) Unless specifically authorized in writing by the Property Administrator, the inventory shall be performed and posted by individuals other than those assigned custody of the items, responsibility for maintenance, or responsibility for posting to the property record. The Contractor may request a waiver from this separation of duties requirement from the Property Administrator, when all of the conditions in either (1) or (2) of this paragraph are met.

(1) The Contractor utilizes an electronic system for property identification, such as a laser bar-code reader or radio frequency identification reader, and

(i) The programs or software preclude manual data entry of inventory identification data by the individual performing the inventory; and

(ii) The inventory and property management systems contain sufficient management controls to prevent tampering and assure proper posting of collected inventory data.

(2) The Contractor has limited quantities of property, limited personnel, or limited property systems; and the Contractor provides written confirmation that the Government property exists in the recorded condition and location;

(3) The Contractor shall submit the request to the cognizant property administrator and obtain approval from the property administrator prior to implementation of the practice.

(c) The Contractor shall report the results of the physical inventory to the property administrator within 10 calendar days of completion of the physical inventory. The report shall –

(1) Provide a summary showing number and value of items inventoried; and

(2) Include additional supporting reports of –

(i) Loss in accordance with the clause at 52.245-1, *Government Property*;

(ii) Idle property available for reuse or disposition; and

(iii) A summary of adjustments made to location, condition, status, or user as a result of the physical inventory reconciliation.

(d) The Contractor shall retain auditable physical inventory records, including records supporting transactions associated with inventory reconciliation. All records shall be subject to Government review and/or audit.

(End of clause)

G.11 1852.245-82 OCCUPANCY MANAGEMENT REQUIREMENTS. (JAN 2011)

(a) In addition to the requirements of the clause at FAR 52.245-1, *Government Property*, as included in this contract, the Contractor shall comply with the following in performance of work in and around Government real property:

(1) NPD 8800.14, Policy for Real Property Management.

(2) NPR 8831.2, Facility Maintenance Management.

(b) The Contractor shall obtain the written approval of the Contracting Officer before installing or removing Contractor-owned property onto or into any Government real property or when movement of Contractor-owned property may damage or destroy Government-owned property. The Contractor shall restore damaged property to its original condition at the Contractor's expense.

(c) The Contractor shall not acquire, construct or install any fixed improvement or structural alterations in Government buildings or other real property without the advance, written approval of the Contracting Officer. Fixed improvement or structural alterations, as used herein, means any alteration or improvement in the nature of the building or other real property that, after completion, cannot be removed without substantial loss of value or damage to the premises. Title to such property shall vest in the Government.

(d) The Contractor shall report any real property or any portion thereof when it is no longer required for performance under the contract, as directed by the Contracting Officer.

(End of clause)

G.12 MSFC 52.204-90 CONTRACTOR EMPLOYEE BADGING AND EMPLOYMENT TERMINATION CLEARANCE. (AUG 2010)

(a) It is anticipated that performance of the requirements of this contract will require employee access to and picture badging by the Marshall Space Flight Center. Contractor requests for badging of employees shall be submitted electronically through NASA's Agency-wide Personal Identity Verification (PIV) system. Requests for badging will be routed electronically to the appointed Contracting Officer Technical Representative (COTR) or the Alternate COTR for approval prior to processing by the MSFC Protective Services Office.

(b) Contractor employees must undergo a background investigation prior to being issued a full-time Contractor badge granting access to Redstone Arsenal. Contractor employees not previously cleared for a full-time Contractor badge (e.g., not previously included in the NASA/MSFC or DoD/Redstone database) must complete a Background Investigation Questionnaire and Release form as soon as practicable and before the employee requires Redstone access. When these forms are completed and submitted to MSFC Security, the Contractor employees may be granted an extended visitor's badge granting restricted Redstone access for a period not to exceed 30 days. This 30-day period is normally more than adequate for the Government to conduct its Background Investigation if the applicant's submission is truthful, accurate and complete, and there are no preexisting issues noted in the investigation. If the Contractor employee does not successfully clear the Background Investigation process within 30 days, the extended visitor badge will be revoked. If the visitor badge is revoked, the contractor employee may not enter MSFC and, if the contractual work assignment requires the employee to be onsite and/or have access to Government IT systems, the employee shall discontinue charging their time to the contract immediately. Any Contractor concerns regarding the timeliness of investigation processing should be raised to the Contracting Officer. The Contracting Officer has sole discretion to extend the 30-day limit.

(c) Contractor employees requiring a badge and/or access to NASA IT systems for less than 179-days within a 365-day period must undergo a fingerprint check through National Crime Information Center/Interstate Identification Index (NCIC/III). Contractor requests for temporary badging of employees shall be submitted electronically through NASA's PIV system. Requests for temporary badging will be routed electronically to the appointed Contracting Officer Technical Representative (COTR) or the Alternate COTR for approval prior to processing by the MSFC Protective Services Office.

(d) The Contractor shall establish procedures to ensure that badged Contractor employees who no longer require Center access properly clear all accounts and turn in their badge and decal(s) to the MSFC Protective Services Office in accordance with MSFC Form 383-1, *Contractor Employee Clearance Document*, or MSFC Form 383-3, *Michoud Assembly Facility (MAF) Contractor Employee Clearance Form*, when the access is no longer needed. An electronic PIV Employee Termination Request must also be submitted.

(e) Instruction on how to access the PIV system and request for copies of MSFC Forms 383-1 and 383-3 shall be directed to the MSFC Protective Services Office, Marshall Space Flight Center, Alabama 35812.

(End of clause)

G.13 CAPITAL ASSET TRACKING.

In accordance with NASA NPR 9250.1, *Property, Plant, and Equipment and Operating Materials and Supplies*, and NPD 9250.1, *Identifying Capital Assets and Accumulation of Cost*, the Contractor shall track, report, and separately identify capital assets as separate Work Breakdown Structure elements on the Contractor's monthly 533 reports. In addition, in accordance with NFS 1852.245-70, the Contractor shall obtain approval from the Contracting Officer prior to purchasing or beginning fabrication of any Property, Plant, and Equipment (PP&E) with an anticipated total acquisition cost greater than $100,000, other than internal use software which has a capitalization threshold of $1,000,000, that is not specifically identified in their contract. PP&E is defined as tangible assets, including land, that meet the following criteria: (1) have estimated useful lives of two (2) years or more, (2) are not intended for sale in the ordinary course of operations, and (3) have been acquired or constructed with the intention of being used or being available for use by the entity. Contractor will provide a copy of supporting invoices (to include third party invoices) to substantiate capitalized asset costs.

(End of clause)

[END OF SECTION]

SECTION H - SPECIAL CONTRACT REQUIREMENTS

H.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE.

1852.208-81	Restrictions on Printing and Duplicating. (Nov 2004)
1852.223-75	Major Breach of Safety Or Security. (Feb 2002)
1852.235-73	Final Scientific and Technical Reports. (Dec 2006) – Alternate II (Dec 2005) Note: This clause applies only when a final report is required of a task order. A final report that summarizes the results of the entire contract is not required. If a final report is required by a task order, the final report shall summarize the results of the task order.

(End of clause)

H.2 1852.209-71 LIMITATION OF FUTURE CONTRACTING. (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*. (See Clause H.3)

(b) The nature of this conflict is:

(1) Performance of the contract may involve the development of specifications or performance work statements that are to be incorporated into an Engineering Solutions & Prototyping (ESP) delivery order or a Marshall Integrated Program Support Services (MIPSS) task order solicitation. As a result, a “biased ground rules” OCI will exist if the same entity provides the requirements and develops a product and/or service in response to those requirements.

(2) In addition, the contract may involve the performance of engineering, scientific, and/or other technical services on space flight hardware and other critical systems that were designed and/or developed by the Contractor under ESP. As a result, an “impaired objectivity” OCI will exist if the same entity that performed the design and/or development work performs such services.

(c) The restrictions upon future contracting are as follows:

The contractor and its major subcontractors (i.e., Aerodyne, APL, BRC, ERC, Geocent, and Qualis) shall not pursue or perform an ESP indefinite-delivery/indefinite-quantity contract or MIPPS blanket purchase agreement as a prime contractor.

(End of clause)

H.3 RESOLUTION OF ORGANIZATIONAL CONFLICTS OF INTEREST (OCI).

(a) OCI plan. The *Organizational Conflict of Interest Plan* (prepared in accordance with DRD 1390MA-003) and its obligations are hereby incorporated in this contract by reference as Attachment J-15.

(b) Changes. (1) Either the Contractor or the Government may propose changes to the

Organizational Conflict of Interest Plan. Such changes are subject to the mutual agreement of the parties and will become effective only upon incorporating the change into the plan by contract amendment. The Contractor shall propose changes in accordance with Clause H.4, *Disclosure of Organizational Conflict of Interest after Contract Award.*

(2) In the event that the Government and the Contractor cannot agree upon a mutually acceptable change, the Government reserves the right to make a unilateral change to the OCI Plan as necessary, with the approval of the head of the contracting activity, subject to Contractor appeal as provided in the Disputes clause.

(c) Violation. The Contractor shall report any violation of the *Organizational Conflict of Interest Plan*, whether by its own personnel or those of the Government or other contractors, to the Contracting Officer. This report shall include a description of the violation and the actions the Contractor has taken or proposes to take to resolve and avoid repetition of the violation. After conducting such further inquiries and discussions as may be necessary, the Contracting Officer and the Contractor shall agree on appropriate corrective action, if any, or the Contracting Officer shall direct corrective action.

(d) Breach. Any breach of the above restrictions or any nondisclosure or misrepresentation of any relevant facts required regarding organizational conflicts of interests to be disclosed may result in termination of this contract for default or other remedies as may be available under law or regulation.

(e) Subcontracts. The Contractor shall include the substance of this clause, including this paragraph (e), in subcontracts where the work includes or may include tasks related to the organizational conflict of interest. The terms “Contractor” and “Contracting Officer” shall be appropriately modified to reflect the change in parties and to preserve the Government’s rights.

(End of clause)

H.4 DISCLOSURE OF ORGANIZATIONAL CONFLICT OF INTEREST AFTER CONTRACT AWARD.

(a) If the Contractor identifies an actual or potential organizational conflict of interest that has not already been adequately disclosed and resolved (or waived in accordance with FAR 9.503), the Contractor shall make a prompt and full disclosure in writing to the Contracting Officer. This disclosure shall include a description of the action the Contractor has taken or proposes to take in order or resolve the conflict. This reporting requirement also includes subcontractors’ actual or potential organizational conflicts of interest not adequately disclosed and resolved prior to award.

(b) OCI plan. The Contractor shall periodically update the plan, based on changes such as changes to the legal entity, the overall structure of the organization, subcontractor arrangements, contractor management, ownership, ownership relationships, or modification of the work scope.

(End of clause)

H.5 1852.216-80 TASK ORDERING PROCEDURE. (OCT 1996)

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

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

(1) A functional description of the work identifying the objectives or results desired from the contemplated task order.
(2) Proposed performance standards to be used as criteria for determining whether the work requirements have been met.

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

(c) Within **5** 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 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 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.6 SUPPLEMENTAL TASK ORDERING PROCEDURES.

(a) This clause supplements the Task Ordering Procedure defined in Clause H.5, *1852.216-80 Task Ordering Procedure*.

(b) Work to be performed under this contract will be within the broad parameters of the *Performance Work Statement*, Attachment J-1, and more clearly defined in Task Orders (TOs) approved and issued at the WBS elements Level 4 or lower. An overview and flowchart of this process is provided in the *Task Flow Process*, Attachment J-10.

(c) TOs shall be managed using an Automated Task Order Management System (ATOMS) as described in PWS paragraph 2.4.

(d)(1) When the Government issues a Task Order Request (TOR) or a Task Order Change Request (TOCR) in accordance with paragraph (b) of Clause H.5,1852.216-80 *Task Ordering Procedure*, the Contractor shall prepare as part of the Task Order Plan (TOP) or Task Order Change Plan (TOCP) the Contractor's estimate of the labor categories, labor hours, other direct cost, and indirect costs required to perform the Task Order requirements. A TOCR is the same as a TOR except that it describes changes to an existing TO instead of describing a new TO. All TOR requirements shall apply to TOCRs. A TOCP is the same as a TOP except that it describes planned changes to an existing TO instead of describing plans for a new TO. All TOP requirements shall apply to TOCPs. TOPs and TOCPs shall be developed in accordance with DRD 1390MA-002, *Task Order Plan (TOP),* in Attachment J-2.

(2) The TOR or TOCR will specify a period of performance that may cross contract option periods, but shall not exceed the period established in Clause 52.216-22, Indefinite Quantity. The TOP or TOCP shall include estimated cost and maximum potential award fee by each evaluation period within the specified task period of performance. Upon exercise of the contract option periods, the TOs with estimates for the exercised option period shall automatically renew.

(e) When an existing TO requires modification, the Government shall create and submit a TOCR to the Contractor using the ATOMS. The TOCR will describe the requested changes to the existing TO by describing new sub-element(s) to be added or changes to existing sub-element(s). The Contractor shall respond using the ATOMS with a new estimate and modified plan (referred to as a TOCP), to include additional or modified requested support/products. Subsequent TO modifications shall include a snapshot summary of previous modification changes at the beginning of the new modification. The summary shall include the technical content changed and the value of the change. The prior modification history and details shall be provided following the summary.

(f) In preparing the estimate, which is part of the TOP or TOCP, it is mutually agreed and understood that the Contractor shall use the labor categories and the lower of the Contractor's actual average rates or the Not-to-Exceed (NTE) rates set forth in Attachment J-9, *Schedule of*

Fully Burdened/Composite Not-To-Exceed (NTE) Labor Rates ($/Hr), Engineering Technician Overtime Rates, and Indirect and Fee Rate Matrix for estimating all labor (Prime Contractor and subcontractor). It also agreed and understood that the Contractor shall use the lower of the actual indirect rates or NTE indirect rates set forth in Attachment J-9 for application to other direct cost estimates. It is further agreed and understood that the maximum available fixed fee, equating to a percentage, set forth in Attachment J-9 shall be used by the Contractor to calculate the potential fixed fee dollars for each TO.

(g) The assigned CO/COTR will review and approve each TOP and TOCP. Once approved, the TOP becomes a TO and the TOCP becomes a modified TO. The Government will provide a list of personnel to be included in the routing of TOs for review and concurrence. The Government retains the right to disapprove any TOPs and TOCPs at the sole discretion of the Government.

(h) The Contractor shall not begin work until the approved TO is received; however, in extreme emergency situations, the Contractor may be authorized by the Contracting Officer to begin work immediately. The Contractor shall process the applicable TOR within five (5) calendar days of being notified of an emergency, and shall not incur costs exceeding $5,000 during the five (5) day period, unless an advance waiver is granted by the Contracting Officer. The Government and Contractor shall finalize the TO within ten (10) calendar days.
(i) Approval of TOs does not relieve the Contractor of its obligation under Clause 52.232-22, *Limitation of Funds* of the contract.

(j) Each TO will include the period covered, estimated cost and potential fixed fee. At the end of each semi-annual fee evaluation period, the current evaluation period values (estimated cost and potential fee) of all Task Orders that were active during that evaluation period will be summed and the resulting total value summation will be used as the potential fixed fee values for that evaluation period. A reconciling unilateral modification to the contract will be issued at least semiannually revising Clause B.2, *Estimated Cost and Fixed Fee Less Deductions* to reflect the summation of the current total Task Order values.

(k) The Contractor shall status each TO and sub-element on a monthly basis in accordance with DRD 1390MA-005, *Task Order Activity Reports*. The Contractor shall provide *Weekly Contract Status Briefings* in accordance with DRD 1390MA-009. The Contractor shall also provide DRDs 1390MA-007, *Financial Management Report (533M)* and 1390MA-008, *Funding Projection Report* on a monthly basis. Overall reporting shall be compatible with the Contractor's organizational structure and the established WBS.

(End of clause)

H.7 TASK ORDER COST INCREASE NOTIFICATION REQUIREMENTS.

(a) The requirements of this clause are in conjunction with Clause 52.232-22, *Limitation of Funds.*

(b) The Contractor shall notify the Contracting Officer in writing and at the *Weekly Contract Status Briefing* per DRD 1390MA-009 whenever 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 thirty (30) calendar 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:

(i) Incurred costs to date

(ii) Projected cost to completion

(iii) Total cost at completion

(iv) Current negotiated estimated cost

(v) 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)

H.8 1852.223-70 SAFETY AND HEALTH. (APR 2002)

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

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

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

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

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

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

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

(g) The Contractor (or subcontractor or supplier) shall insert the substance of this clause, including this paragraph (g) and any applicable Schedule provisions and clauses, with appropriate changes of designations of the parties, in all solicitations and subcontracts of every tier, when one or more of the following conditions exist:

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

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

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

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

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

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

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

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

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

(End of clause)

H.9 1852.225-70 EXPORT LICENSES. (FEB 2000) – 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 MSFC, Huntsville, AL, 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.

(End of clause)

H.10 1852.235-71 KEY PERSONNEL AND FACILITIES. (MAR 1989)

(a) The personnel and/or facilities listed below (or specified in the contract Schedule) are considered essential to the work being performed under this contract. Before removing, replacing, or diverting any of the listed or specified personnel or facilities, the Contractor shall

(1) notify the Contracting Officer reasonably in advance and (2) submit justification (including proposed substitutions) in sufficient detail to permit evaluation of the impact on this contract.

(b) The Contractor shall make no diversion without the Contracting Officer's written consent; provided that the Contracting Officer may ratify in writing the proposed change, and that ratification shall constitute the Contracting Officer's consent required by this clause.
(c) The list of personnel and/or facilities (shown below or as specified in the contract Schedule) may, with the consent of the contracting parties, be amended from time to time during the course of the contract to add or delete personnel and/or facilities.

Off-site office space currently held at 1500 Perimeter Parkway, Huntsville, AL or equivalent.

(b)(4)

(End of clause)

H.11 1852.242-72 OBSERVANCE OF LEGAL HOLIDAYS. (AUG 1992) – ALTERNATE I (SEP 1989) AND ALTERNATE II (OCT 2000)

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

New Year's Day
Martin Luther King, Jr.'s Birthday
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
Veterans Day
Thanksgiving Day
Christmas Day

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

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

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

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

(e) When the NASA installation grants administrative leave to its Government employees (e.g., as a result of inclement weather, potentially hazardous conditions, or other special circumstances), Contractor personnel working on-site should also be dismissed. However, the contractor shall provide sufficient on-site personnel to perform round-the-clock requirements of critical work already in process, unless otherwise instructed by the Contracting Officer or authorized representative.

(f) Whenever administrative leave is granted to Contractor personnel pursuant to paragraph (e) of this clause, it shall be without loss to the Contractor. The cost of salaries and wages to the Contractor for the period of any such excused absence shall be a reimbursable item of cost under this contract for employees in accordance with the Contractor's established accounting policy.

(End of clause)

H.12 MSFC 52.223-90 ASBESTOS MATERIAL. (JUN 2002)

During performance of this contract, Contractor personnel performing work in MSFC buildings may come in contact with materials containing asbestos. MSFC Buildings 4200, 4201, 4202, 4663 and 4666 are of special concern since they are known to contain a sprayed on fire insulation on or above the ceiling, usually located on the metal or concrete structure of the buildings. These buildings and all other MSFC buildings may contain asbestos in floor tile, pipe and lagging insulation, exterior siding, roofing felt, and many other building materials. Prior to disturbing suspected asbestos material in any manner, the Contractor shall notify MSFC's Occupational Medicine and Environmental Health Services, for guidance. Contractor shall be responsible for ensuring that all Contractor personnel working onsite are made aware of and comply with this clause.

(End of clause)

H.13 MSFC 52.223-91 HAZARDOUS MATERIAL REPORTING. (AUG 2005)

(a) If during the performance of this contract, the Contractor transports or accepts delivery of any hazardous materials (hazardous as defined under the latest version of Federal Standard No. 313, including revisions adopted during the term of the contract) on-site to Marshall Space Flight Center, the hazardous material shall be processed through MSFC Central Receiving to be bar-coded for inventory. Chemical containers shall be managed in accordance with the provisions of MWI 8550.5, *Chemical Management*. The Contractor shall be responsible for ensuring that all Contractor/subcontractor personnel are made aware of and comply with this clause.

(b) 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; or with clauses regarding hazardous materials, which may be contained in the order.

(End of clause)

H.14 MSFC 52.223-92 ENVIRONMENTAL - GENERAL CLAUSE. (AUG 2010)

Contractors performing on-site shall comply with all applicable Environmental policies and procedures including, but not limited to, MPD 8500.1, *MSFC Environmental Management Policy* and MPR 8500.1, *MSFC Environmental Management Program*. MSFC Contractors performing on-site activities that could potentially impact the environment shall be responsible for following all established NASA/MSFC environmental procedures. These procedures and other applicable policies and procedures are available by contacting the NASA/MSFC Environmental Engineering & Occupational Health Office. Failure to comply with environmental policies and procedures, may result in damage to the environment, and could potentially result in regulatory penalties against NASA and/or the Contractor, and Contractor loss of access to NASA/MSFC facilities.

(End of clause)

H.15 MSFC 52.223-94 SAFETY PERFORMANCE EVALUATION, EVALUATION CRITERIA, AND PERFORMANCE RECOGNITION. (JUN 2011)

SAFETY PERFORMANCE EVALUATION

(1) CONTRACTOR RESPONSIBILITY. The Contractor is responsible for maintaining an effective safety program during the course of the contract with a goal to achieve a world-class program within the term of the contract. The Contractor will ensure that the requirements of the MSFC approved Safety, Health and Environment (SHE) Plan and applicable Data Requirement Documents (DRD) are met. Contractor safety performance evaluation will be based on the MSFC safety and health program elements identified in MPR 8715.1, MSFC Safety, Health and Environmental (SHE) Program. The Contractor shall conduct an annual self-evaluation of their safety and health program based on these criteria. The Contractor shall submit an annual self-evaluation to the Contracting Officer (CO) no later than 30 days after each anniversary of the contract. The CO/Contracting Officer Technical Representative (COTR), in coordination with the MSFC Industrial Safety Branch, will validate the Contractor's self-evaluation.

Annually, the agreed score will be used to assess the Contractor's safety and health performance appropriately - positive or negative.

For the purpose of validating the annual score, the Contractor and the CO/COTR, in coordination with the MSFC Industrial Safety Branch, will reach a mutually agreeable determination based on the metrics reflected in the Attachment J-14 of this clause. In cases where the Contractor and CO/COTR cannot reach agreement, the MSFC Ombudsman will hear arguments from both sides and make a final decision. This process shall not preclude the CO from taking immediate action for any serious, willful, blatant, or continued violations of MSFC safety, health and environmental policy or procedures.

(2) EVALUATION CRITERIA. Contractor self-evaluation and Government validation will be based on the applicable elements and sub-elements of the MSFC safety and health program shown below. Specific criteria are shown on Attachment J-14 entitled "Safety & Health Management Implementation Guide and Assessment Matrix." Deviations from the matrix criteria may be made, for cause, and must be approved by the COTR, CO and Government Safety Representative. It should be noted that Element 1 has a management and an employee component. These are simply averaged to obtain the score for Element 1. The result should be carried to the second decimal point.

MSFC SAFETY AND HEALTH CORE PROGRAM REQUIREMENTS

(ELEMENT 1)	**(ELEMENT 3)**
Management and Employee Involvement	**Hazard Prevention and Control**
Management Commitment	Hazard Elimination and Control Process (Engineering/Administrative/Safety Devices/Work Practices/Personal Protective Equipment)
Documented Safety Policy and Goals	Preventative Maintenance for Facility and Equipment
Employee Involvement/Engagement	Emergency Preparedness and Drills
Safety Committees	Emergency Medical Care Program
Safety Meetings	Hazard Control Programs
Subcontractor Safety	Occupational Health Program
Resources	Tracking Hazard Correction
Accountability	Access to Professional Safety Staff
Annual Safety and Health Program Evaluation	Disciplinary Program

(ELEMENT 2)	**(ELEMENT 4)**
Worksite Hazard Analysis	**Safety and Health Training**
Baseline Surveys and Analyses for the Worksite	Employee Knowledge of Hazards in the Workplace, Recognize Hazards, Signs and Symptoms of Workplace-Related Illnesses, and Safe Work Procedures
Perform Analysis Of New Work and When Significant Changes Occur	Supervisor and Managers Understand Their Safety and Health Responsibilities
Job Hazard Analysis/ Process Review for Routine Jobs	Training Documentation
Routine Self-Inspections	Training Curriculum Specific to the Worksite Operations
Hazard Reporting by Employees	
Investigation Of Mishap/Close Calls	
Injury/Illness Rates	

(3) PERFORMANCE RECOGNITION.

In accordance with MPR 8715.1, "Marshall Safety, Health, and Environmental (SHE) Program", Contractor performance that is validated and recognized to have achieved a world-class program within the term of the contract will be recognized with the following:

Superior Safety Performance level- Annual rating score of ≥ 36 and a Lost Time Case Rate (LTC) ≤ 50% of the LTC National average for the applicable North American Industry Classification System (NAICS) average.	*Plaque Presentation by the Center Director at the Marshall Team Meeting*. *Appropriate contractor past performance referrals may be provided.*

Exception: *Contractors with less than 100 employees located onsite at MSFC and/or MAF*. To be rated at Superior Safety Performance level, the Contractor shall have no lost time injuries during the past year.

The following will result in cases where a Contractor's performance is rated as being below the accepted safety performance level:

Below Accepted Safety Performance level - Annual rating score of ≤ 16 or a LTC that is <10% of the LTC National average for the applicable NAICS average.	Formal letter from S&MA Director and the Director of the Office of Procurement expressing concern. *Corrective Action Plan requested. Data may be placed in contractor past performance database.*

Failure to improve could result in contract options not being exercised.

Exception*:* Contractors with less than 100 employees located onsite at MSFC *and/or MAF. A Below Accepted Safety Performance level will be given to a contractor having more than one* lost time injuries during the past year.

If Contractor's Safety and Health Performance evaluation rating falls within the range (>16, but <34) and the Contractor achieves a LTC between +/- 10% of the LTC National average for the applicable NAICS, the Contractor's performance is recognized as acceptable.	*No recognition*

NOTE: The most current Department of Labor NAICS average, effective at the beginning of the annual evaluation period, will be utilized for LTC evaluation. Lost Time Incidents shall be recorded in accordance with NASA requirements specified in MWI 8621.1, "Mishap and Close Call Reporting and Investigation Program." Final decisions on any disputed lost time injury determinations will be handled by established Government regulatory procedures.

(4) CONTRACTOR ACCOUNTABILITY FOR MISHAPS.

The Contractor shall not be held accountable for injuries to their personnel or damage to the property they control that is caused by individuals or situations clearly outside the control of their contract.

(5) EVALUATION PROCESS.

The evaluation process will be based on the major elements and their sub-elements cited in Paragraph 2.

The evaluation process will include these steps:

- Contractor to conduct an annual self-assessment of their safety and health program and assign a numerical score to each element (4) using the Safety and Health Management Implementation Guide and Assessment Matrix at Attachment J-14.

- Contractor self assessments will address compliance with their approved Safety, Health and Environmental (SHE) Plan and MPR 8715.1, "Marshall Safety, Health, and Environmental (SHE) Program."

- Contractor to have their self-assessment validated by CO/COTR and Industrial Safety Branch.

- On an annual basis, the CO will apply incentives/recognition or consequences based on the validated yearly score. The CO will make a determination annually for items requested in paragraph 6 that are not reported. (*Also, see paragraph 7 below*.)

- Contractor will provide their self-assessment as shown in Attachment J-14 or an equivalent format.

(6) SAFETY METRIC REPORTING.

The Contractor shall report safety metrics using MSFC Form 4371 to the extent specified in the contract. Refer to MWI 8715.1, "Marshall Safety, Health, and Environmental (SHE) Program."

Service and Support contracts - DRD for Mishap and Safety Statistics Report

Construction contracts - MSFC Technical Specification for Repair and Construction (TSRC), Specs and Techs, or Master Specs.

(7) FAILURE TO REPORT.

If the Contractor fails to timely and accurately report to the CO, COTR and the MSFC Industrial Safety Branch, pursuant to the requirements of the relevant contract, all the information on all personnel and property mishaps that meet the criteria of NPR 8621.1, "NASA Procedural Requirements for Mishap and Close Call Reporting, Investigating, and Recordkeeping", MWI 8621.1, "Mishap and Close Call Reporting and Investigation Program", and the items in paragraph 6 of this clause, the CO may reduce the profit/fee/price/cost otherwise payable under the relevant contract in an amount of up to $1,000 for each occurrence of failure to report. Any reduction amount shall be determined by and left to the sole discretion of the CO. This reduction does not apply to award fee type contracts where the award fee payable is based on the award fee criteria and is determined by the Fee Determination Official.

Safety Performance
Evaluation Summary

Evaluation Criteria and Performance Recognition

EVALUATION CRITERIA

- Management Leadership and Employee Involvement (Element 1)
- Worksite Analysis (Element 2)
- Hazard Prevention and Control (Element 3)
- Safety and Health Training (Element 4)

Score	**≥ 36 points (Annual Score)**	**≤ 16 points (Annual Score)**
LTC	and ≤ 50% of the LTC National average for the applicable NAICS **Exception**: Contractors with less than 100 employees located onsite at MSFC and/or MAF shall have no lost time injuries during the past year.	or > than 10% of the LTC National average for the applicable NAICS **Exception**: Contractors with less than 100 employees located onsite at MSFC and/or MAF. A Below Accepted Safety Performance level rating will be given when more than one lost time injuries are reported during the past year.
Grade Levels	**Superior Safety Performance**	**Below Accepted Safety Performance**
Recognition	Plaque Presentation by the Center Director at the Marshall Team Meeting. Appropriate contractor past performance referrals may be provided.	Formal letter from S&MA Director and the Director of the Office of Procurement expressing concern. Corrective Action Plan requested. **Failure to improve could result in Contract Options not being exercised.**

NOTE: If the Contractor's safety performance evaluation does not fall within one of the above categories, no recognition will be provided and possible follow-up by the MSFC Industrial Safety Office.

- ***Reductions in profit/fee/price/cost payable***

Failure to timely and accurately report information on all personnel and property mishaps that meet the criteria of NPR 8621.1, "NASA Procedural Requirements for Mishap and Close Call Reporting, Investigating, and Recordkeeping", MWI 8621.1, "Mishap and Close Call Reporting and Investigation Program" and the items in paragraph 6 of this clause may result in a reduction in the profit/fee/price/cost otherwise payable under this contract in an amount of up to $1,000 for each occurrence of failure to report. Any reduction amount shall be determined by and left to the

sole discretion of the CO. This reduction does not apply to award fee type contracts where the award fee payable is based on the award fee criteria and is determined by the Fee Determination Official.

(End of clause)

H.16 MSFC 52.223-95 PREVENTION OF AND RESPONSE TO THREATENING BEHAVIOR IN THE WORKPLACE. (AUG 2010)

The Contractor shall comply with all applicable Contractor responsibilities set forth in Marshall Procedural Requirements (MPR) 1600.2, *Prevention of and Response to Threatening Behavior in the Workplace*.

(End of clause)

H.17 DOCUMENTATION OF TRAINING AND MSFC ON-SITE REQUIRED TRAINING COURSES.

(a) MSFC requires that all onsite personnel complete training courses listed below as well as any future training requirements mandated by MSFC. Except as noted below, these courses are provided as internet-based courses via the NASA SATERN training system to which Contractor employees will be provided access. Contractors shall maintain training records for each employee, documenting the completion of these and any other required training courses.

TRAINING REQUIREMENT	**FREQUENCY**	**SOURCE**
New Employee IT Security Training	*OTR	Online
Basic Information Technology Security (ITS)	Annually	Online
Information Technology Security (ITS) for Managers	Annually	Online
Protecting Sensitive But Unclassified Information (SBU)	Not Estab.	Online
SHE 101 – The Safety, Health, and Environmental Program	*OTR	Online
SHE 102 – MSFC SHE Program Refresher Training	Annually	Online
SHE 106 – Safety Visit Training for Supervisors	*OTR	Instructor
SHE 118 – MSFC SHE Training for Managers/Supervisors	*OTR	Instructor
SHE 126 – Job Hazard Analysis	*OTR	Online
SHE 152 – Hazard Warning Signs, Tags, and Barricades	*OTR	Online
NASA Property Responsibility and Accountability	Annually	Online
Recognition and Prevention of Workplace Violence	Annually	Online

* – One Time Requirement (OTR)

(b) The Contractor specific certifications, proficiencies, and licenses are referenced in the DRD 1390SA-002, *Contractor Personnel Certification Plan.* Specific training is required to execute some duties at MSFC. In general, training for its employees and subcontractors shall be the responsibility of the Contractor. The Safety, Health, and Environmental (SHE) courses outlined above are offered at no cost to the Contractor. The certification courses are offered to the Contractor on a limited space available basis and MSFC makes no obligation to provide this training to Contractor personnel. MSFC Contractors may develop their own training for those courses not provided. Certification courses developed by a Contractor and/or verification of certification by an outside vendor, the course material shall be submitted to the MSFC Industrial Safety Branch/SHE Training Subcommittee for approval and the training is subject to audit by the Government.

(End of clause)

[END OF SECTION]

SECTION I - CONTRACT CLAUSES

I.1 52.252-2 CLAUSES INCORPORATED BY REFERENCE. (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.acquisition.gov/far/index.html

NASA FAR Supplement (NFS) clauses:

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

Clause(s):

52.202-1	Definitions. (JUL 2004)
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. (Sep 2006)
52.203-7	Anti-Kickback Procedures. (Oct 2010)
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. (Oct 2010)
52.203-13	Contractor Code of Business and Conduct. (Apr 2010)
52.203-14	Display of Hotline Poster(s). (Dec 2007) (i) Posters may be obtained from the NASA Office of Inspector General, Code W, Washington DC, 20546-0001, (202) 258-1220
52.204-2	Security Requirements. (Aug 1996)
52.204-4	Printed or Copied Double-Sided on Post Consumer Fiber Content Paper. (May 2011)
52.204-7	Central Contractor Registration. (Apr 2008)
52.204-9	Personal Identity Verification of Contractor Personnel. (Jan 2011) Note: The agency personal identity verification procedures are provided in Attachment J-16 of the contract.

52.204-10	Reporting Executive Compensation and First-Tier Subcontracts Awards. (Jul 2010)
52.209-1	Prohibition on Contracting with Inverted Domestic Corporations. (May 2011)
52.209-6	Protecting the Government's Interest When Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment. (Dec 2010)
52.210-1	Market Research. (Apr 2011)
52.211-15	Defense Priority and Allocation Requirements. (Apr 2008)
52.215-2	Audit and Records - Negotiation. (Oct 2010)
52.215-8	Order of Precedence - Uniform Contract Format. (Oct 1997)
52.215-10	Price Reductions for Defective Certified Cost or Pricing Data. (Aug 2011)
52.215-11	Price Reduction for Defective Certified Cost or Pricing Data – Modifications. (Aug 2011)
52.215-12	Subcontractor Certified Cost or Pricing Data. (Oct 2010)
52.215-13	Subcontractor Certified Cost or Pricing Data – Modifications. (Oct 2010)
52.215-14	Integrity of Unit Prices. (Oct 2010)
52.215-15	Pension Adjustments and Asset Reversions. (Oct 2010)
52.215-17	Waiver of Facilities Capital Cost Of Money. (Oct 1997)
52.215-18	Reversion or Adjustment of Plans for Postretirement Benefits (PRB) Other Than Pensions. (Jul 2005)
52.215-21	Requirements for Certified Cost or Pricing Data or Data Other Than Cost or Pricing Data – Modifications. (Oct 2010) – Alternate I, II, and III (Oct 2010) Alternate I – (1) The Contractor Shall Submit Certified Cost Or Pricing Data, Data Other Than Certified Cost Or Pricing Data, And Supporting Attachments Prepared In The Following Format: “Microsoft Excel (PC Compatible)” Alternate III – (c) Submit The Cost Portion Of The Proposal Via The Following Electronic Media: "Microsoft Excel (PC Compatible)"
52.215-23	Limitations On Pass-Through Charges. (Oct 2009) – Alternate I (Oct 2009)
52.216-7	Allowable Cost and Payment. (Jun 2011) (3) The Designated Payment Office Will Make Interim Payments For Contract Financing On The ″30**th**″ Day After The Designated Billing Office Receives A Proper Payment Request.
52.216-8	Fixed Fee. (Mar 1997)
52.217-2	Cancellation Under Multiyear Contract. (Oct 1997)
52-217-8	Option to Extend Services. (Nov 1999) FILL-IN “**30 days**”

52-217-9	Option to Extend the Term of the Contract. (Mar 2000) (a) FILL-IN "**30 day"**(c) FILL-IN "**5 years**"
52.219-4	Notice of Price Evaluation Preference for Hubzone Small Business Concerns. (Jan 2011) N/A ☐ Offeror Elects To Waive The Evaluation Preference.
52.219-8	Utilization of Small Business Concerns. (Jan 2011)
52.219-9	Small Business Subcontracting Plan. (Jan 2011) – Alternate II (Oct 2001)
52.219-16	Liquidated Damages — Subcontracting Plan. (Jan 1999)
52.219-25	Small Disadvantaged Business Participation Program-Disadvantaged Status And Reporting. (Dec 2010)
52.219-28	Post-Award Small Business Program Representation. (Apr 2009)
52.222-1	Notice to the Government of Labor Disputes. (Feb 1997)
52.222-2	Payment for Overtime Premiums. (Jul 1990) (a) The use of overtime is authorized under this contract if the overtime premium does not exceed "See Section B, Premium for Scheduled Overtime clause" or the overtime premium is paid for work -
52.222-3	Convict Labor. (Jun 2003)
52.222-4	Contract Work Hours and Safety Standards Act – Overtime Compensation. (Jul 2005)
52.222-21	Prohibition of Segregated Facilities. (Feb 1999)
52.222-26	Equal Opportunity. (Mar 2007)
52.222-35	Equal Opportunity for Veterans. (Sep 2010)
52.222-36	Affirmative Action for Workers with Disabilities. (Oct 2010)
52.222-37	Employment Reports on Veterans. (Sep 2010)
52.222-40	Notification of Employee Rights Under the National Labor Relations Act. (Dec 2010)
52.222-41	Service Contract Act of 1965. (Nov 2007)
52.222-50	Combating Trafficking in Persons. (Feb 2009)
52.222.54	Employment Eligibility Verification. (Jan 2009)
52.223-2	Affirmative Procurement of Biobased Products Under Service and Construction Contracts. (Dec 2007)
52.223-3	Hazardous Material Identification and Material Safety Data. (Jan 1997) – Alternate I (Jul 1995) FILL-IN "**None**"
52.223-5	Pollution Prevention and Right-To-Know Information. (May 2011) – Alternate I (May 2011) and Alternate II (May 2011)

52.223-6	Drug-Free Workplace. (May 2001)
52.223-10	Waste Reduction Program. (May 2011)
52.223-12	Refrigeration Equipment and Air Conditioners. (May 1995)
52.223-18	Encouraging Contractor Policies to Ban Text Messaging while Driving. (Aug 2011)
52.223-19	Compliance with Environmental Management Systems. (May 2011)
52.225-1	Buy American Act – Supplies. (Feb 2009)
52.225-13	Restrictions on Certain Foreign Purchases. (Jun 2008)
52.227-11	Patent Rights-Ownership by the Contractor. (Dec 2007)
52.227-14	Rights in Data--General. (Dec 2007) Alternate II (Dec 2007) Alternate III (Dec 2007) additional purposes – (i),(ii) and (iii) per FAR 27.404-2(c)(1) Alternate V (Dec 2007)
52.227-16	Additional Data Requirements. (Jun 1987)
52.227-19	Commercial Computer Software—Restricted Rights. (Dec 2007)
52.228-7	Insurance - Liability to Third Persons. (Mar 1996)
52.230-2	Cost Accounting Standards. (Oct 2010)
52.230-6	Administration of Cost Accounting Standards. (Jun 2010)
52.232-9	Limitation on Withholding of Payments. (Apr 1984)
52.232-17	Interest. (Oct 2010)
52.232-18	Availability of Funds. (Apr 1984)
52.232-22	Limitation of Funds. (Apr 1984)
52.232-23	Assignment of Claims. (Jan 1986)
52.232-25	Prompt Payment. (Oct 2008) -- Alternate I (Feb 2002)
52.232-33	Payment by Electronic Funds Transfer - Central Contractor Registration. (Oct 2003)
52.233-1	Disputes. (Jul 2002) - Alternate I (Dec 1991)
52.233-3	Protest After Award. (Aug 1996) – Alternate I (Jun 1985)
52.233-4	Applicable Law for Breach of Contract Claim. (Oct 2004)
52.237-2	Protection of Government Buildings, Equipment, and Vegetation. (Apr 1984)
52.237-3	Continuity of Services. (Jan 1991)

52.242-1	Notice of Intent to Disallow Costs. (Apr 1984)
52.242-3	Penalties for Unallowable Costs. (May 2001)
52.242-4	Certification of Final Indirect Costs. (Jan 1997)
52.242-13	Bankruptcy. (Jul 1995)
52.243-2	Changes – Cost-Reimbursement. (Aug 1987) – Alternate II (Apr 1984)
52.244-5	Competition in Subcontracting. (Dec 1996)
52.244-6	Subcontracts for Commercial Items. (Oct 2010)
52.245-1	Government Property. (Aug 2010)
52.245-9	Use And Charges. (Aug 2010)
52.246-25	Limitation of Liability – Services. (Feb 1997)
52.247-1	Commercial Bill of Lading Notations. (Feb 2006)
52.248-1	Value Engineering. (Oct 2010)
52.249-6	Termination (Cost-Reimbursement). (May 2004)
52.249-14	Excusable Delays. (Apr 1984)
52.251-1	Government Supply Sources. (Aug 2010)
52.253-1	Computer Generated Forms. (Jan 1991)
1852.203-70	Display of Inspector General Hotline Posters. (Jun 2001)
1852.216-89	Assignment and Release Forms. (Jul 1997)
1852.219-74	Use of Rural Area Small Businesses. (Sep 1990)
1852.219-75	Small Business Subcontracting Reporting. (May 1999)
1852.219-77	NASA Mentor-Protégé Program. (May 2009)
1852.219-79	Mentor Requirements and Evaluation. (May 2009)
1852.223-74	Drug-And Alcohol-Free Workforce. (Mar 1996)
1852.227-11	Patent Rights—Retention by the Contractor (Short Form). **Modifies FAR Clause**
1852.227-14	Rights in Data - General
1852.227-19	Commercial Computer Software - Restricted Rights.
1852.228-75	Minimum Insurance Coverage. (Oct 1988)
1852.237-70	Emergency Evacuation Procedures. (Dec 1988)

1852.242-78	Emergency Medical Services and Evacuation. (Apr 2001)
1852.243-71	Shared Savings. (Mar 1997)

(End of clause)

I.2 52.204-1 APPROVAL OF CONTRACT. (DEC 1989)

This contract is subject to the written approval of MSFC Procurement Officer and shall not be binding until so approved.

(End of clause)

I.3 52.209-9 UPDATES OF PUBLICLY AVAILABLE INFORMATION REGARDING RESPONSIBILITY MATTERS. (JAN 2011)

(a) The Contractor shall update the information in the Federal Awardee Performance and Integrity Information System (FAPIIS) on a semi-annual basis, throughout the life of the contract, by posting the required information in the Central Contractor Registration database at http://www.ccr.gov/.

(b)(1) The Contractor will receive notification when the Government posts new information to the Contractor's record.

(2) The Contractor will have an opportunity to post comments regarding information that has been posted by the Government. The comments will be retained as long as the associated information is retained, i.e., for a total period of 6 years. Contractor comments will remain a part of the record unless the Contractor revises them.

(3)(i) Public requests for system information posted prior to April 15, 2011, will be handled under Freedom of Information Act procedures, including, where appropriate, procedures promulgated under E.O. 12600.

(ii) As required by section 3010 of Public Law 111-212, all information posted in FAPIIS on or after April 15, 2011, except past performance reviews, will be publicly available.

(End of clause)

I.4 52.215-19 NOTIFICATION OF OWNERSHIP CHANGES. (OCT 1997)

(a) The Contractor shall make the following notifications in writing:

(1) When the Contractor becomes aware that a change in its ownership has occurred, or is certain to occur, that could result in changes in the valuation of its capitalized assets in the

accounting records, the Contractor shall notify the Administrative Contracting Officer (ACO) within 30 days.

(2) The Contractor shall also notify the ACO within 30 days whenever changes to asset valuations or any other cost changes have occurred or are certain to occur as a result of a change in ownership.

(b) The Contractor shall -

(1) Maintain current, accurate, and complete inventory records of assets and their costs;

(2) Provide the ACO or designated representative ready access to the records upon request;

(3) Ensure that all individual and grouped assets, their capitalized values, accumulated depreciation or amortization, and remaining useful lives are identified accurately before and after each of the Contractor's ownership changes; and

(4) Retain and continue to maintain depreciation and amortization schedules based on the asset records maintained before each Contractor ownership change.

(c) The Contractor shall include the substance of this clause in all subcontracts under this contract that meet the applicability requirement of FAR 15.408(k).

(End of clause)

I.5 52.216-18 ORDERING. (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 Aug 1, 2012 through July 31, 2017, if options are exercised.

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

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

(End of clause)

I.6 52.216-19 ORDER LIMITATIONS. (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 **$120,000,000**;
(2) Any order for a combination of items in excess of **$120,000,000**; or

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

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

(d) Notwithstanding paragraphs (b) and (c) of this section, the Contractor shall honor any order exceeding the maximum order limitations in paragraph (b), unless that order (or orders) is returned to the ordering office within 10 calendar days after issuance, with written notice stating the Contractor's intent not to ship the item (or items) called for and the reasons. Upon receiving this notice, the Government may acquire the supplies or services from another source.

(End of clause)

I.7 52.216-22 INDEFINITE QUANTITY. (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 July 31, 2018.

(End of clause)

I.8 52.222-42 STATEMENT OF EQUIVALENT RATES FOR FEDERAL HIRES. (MAY 1989)

In compliance with the Service Contract Act of 1965, as amended, and the regulations of the Secretary of Labor (29 CFR Part 4), this clause identifies the classes of service employees expected to be employed under the contract and states the wages and fringe benefits payable to each if they were employed by the contracting agency subject to the provisions of 5 U.S.C. 5341 or 5332.

This Statement is for Information Only:
It is not a Wage Determination

Classification, Grades and Rates

Employee Class	Grade	Hourly Wage Rate That Would Be Paid If Federally Employed
Engineering Technician I	GS-3	$ 12.14
Engineering Technician II	GS-5	$ 15.25
Engineering Technician III	GS-7	$ 18.89
Engineering Technician IV	GS-9	$ 23.11
Engineering Technician V	GS-11	$ 27.96
Engineering Technician VI	GS-12	$ 33.51

(End of clause)

I.9 52.223-7 NOTICE OF RADIOACTIVE MATERIALS. (JAN 1997)

(a) The Contractor shall notify the Contracting Officer or designee, in writing, **60** calendar days prior to the delivery of, or prior to 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).

* The Contracting Officer shall insert the number of days required in advance of delivery of the item or completion of the servicing to assure that required licenses are obtained and appropriate personnel are notified to institute any necessary safety and health precautions. See FAR 23.601(d).

(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.

(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.10 52.244-2 SUBCONTRACTS. (OCT 2010)

(a) Definitions. As used in this clause -

"Approved purchasing system" means a Contractor's purchasing system that has been reviewed and approved in accordance with Part 44 of the Federal Acquisition Regulation (FAR).

"Consent to subcontract" means the Contracting Officer's written consent for the Contractor to enter into a particular subcontract.

"Subcontract" means any contract, as defined in FAR Subpart 2.1, entered into by a subcontractor to furnish supplies or services for performance of the prime contract or a subcontract. It includes, but is not limited to, purchase orders, and changes and modifications to purchase orders.

(b) When this clause is included in a fixed-price type contract, consent to subcontract is required only on unpriced contract actions (including unpriced modifications or unpriced delivery orders), and only if required in accordance with paragraph (c) or (d) of this clause.

(c) If the Contractor does not have an approved purchasing system, consent to subcontract is required for any subcontract that -

(1) Is of the cost-reimbursement, time-and-materials, or labor-hour type; or

(2) Is fixed-price and exceeds -

(i) For a contract awarded by the Department of Defense, the Coast Guard, or the National Aeronautics and Space Administration, the greater of the simplified acquisition threshold or 5 percent of the total estimated cost of the contract; or

(ii) For a contract awarded by a civilian agency other than the Coast Guard and the National Aeronautics and Space Administration, either the simplified acquisition threshold or 5 percent of the total estimated cost of the contract.

(d) If the Contractor has an approved purchasing system, the Contractor nevertheless shall obtain the Contracting Officer's written consent before placing the following subcontracts: "All

cost-reimbursement, time-and-materials, labor-hour type contracts, and all other types with an estimated value greater than $1,000,000."

(e)(1) The Contractor shall notify the Contracting Officer reasonably in advance of placing any subcontract or modification thereof for which consent is required under paragraph (b), (c) or (d) of this clause, including the following information:

(i) A description of the supplies or services to be subcontracted.

(ii) Identification of the type of subcontract to be used.

(iii) Identification of the proposed subcontractor.

(iv) The proposed subcontract price.

(v) The subcontractor's current, complete, and accurate certified cost or pricing data and Certificate of Current Cost or Pricing Data, if required by other contract provisions.

(vi) The subcontractor's Disclosure Statement or Certificate relating to Cost Accounting Standards when such data are required by other provisions of this contract.

(vii) A negotiation memorandum reflecting -

(A) The principal elements of the subcontract price negotiations;

(B) The most significant considerations controlling establishment of initial or revised prices;

(C) The reason certified cost or pricing data were or were not required;

(D) The extent, if any, to which the Contractor did not rely on the subcontractor's certified cost or pricing data in determining the price objective and in negotiating the final price;

(E) The extent to which it was recognized in the negotiation that the subcontractor's certified cost or pricing data were not accurate, complete, or current; the action taken by the Contractor and the subcontractor; and the effect of any such defective data on the total price negotiated;

(F) The reasons for any significant difference between the Contractor's price objective and the price negotiated; and

(G) A complete explanation of the incentive fee or profit plan when incentives are used. The explanation shall identify each critical performance element, management decisions used to quantify each incentive element, reasons for the incentives, and a summary of all trade-off possibilities considered.

(2) The Contractor is not required to notify the Contracting Officer in advance of entering into any subcontract for which consent is not required under paragraph (b), (c) or (d) of this clause.

(f) Unless the consent or approval specifically provides otherwise, neither consent by the Contracting Officer to any subcontract nor approval of the Contractor's purchasing system shall constitute a determination -

(1) Of the acceptability of any subcontract terms or conditions;

(2) Of the allowability of any cost under this contract; or
(3) To relieve the Contractor of any responsibility for performing this contract.

(g) No subcontract or modification thereof placed under this contract shall provide for payment on a cost-plus-a-percentage-of-cost basis, and any fee payable under cost-reimbursement type subcontracts shall not exceed the fee limitations in FAR 15.404-4(c)(4)(i).

(h) The Contractor shall give the Contracting Officer immediate written notice of any action or suit filed and prompt notice of any claim made against the Contractor by any subcontractor or vendor that, in the opinion of the Contractor, may result in litigation related in any way to this contract, with respect to which the Contractor may be entitled to reimbursement from the Government.

(i) The Government reserves the right to review the Contractor's purchasing system as set forth in FAR Subpart 44.3.

(j) Paragraphs (c) and (e) of this clause do not apply to the following subcontracts, which were evaluated during negotiations: "None."

(End of clause)

I.11 52.247-67 SUBMISSION OF TRANSPORTATION DOCUMENTS FOR AUDIT. (FEB 2006)

(a) The Contractor shall submit to the address identified below, for prepayment audit, transportation documents on which the United States will assume freight charges that were paid--

(1) By the Contractor under a cost-reimbursement contract; and

(2) By a first-tier subcontractor under a cost-reimbursement subcontract thereunder.

(b) Cost-reimbursement Contractors shall only submit for audit those bills of lading with freight shipment charges exceeding $100. Bills under $100 shall be retained on-site by the Contractor and made available for on-site audits. This exception only applies to freight shipment bills and is not intended to apply to bills and invoices for any other transportation services.

(c) Contractors shall submit the above referenced transportation documents to -

NASA/Shared Services Center
Financial Management Division (FMD)
Accounts Payable
Bldg 1111, C Road
NSSC-AccountsPayable@nasa.gov
Stennis Space Center, MS 39529-6000

(End of clause)

I.12 52.252-6 AUTHORIZED DEVIATIONS IN CLAUSES. (APR 1984)

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

(b) The use in this solicitation or contract of any NFS (48 CFR 18) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

(End of clause)

I.13 1852.204-75 SECURITY CLASSIFICATION REQUIREMENTS. (SEP 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 TBD. *See Federal Acquisition Regulation* clause 52.204-2 in this contract and DD Form 254, *Contract Security Classification Specification,* Attachment J-12*.*

(End of clause)

I.14 1852.204-76 SECURITY REQUIREMENTS FOR UNCLASSIFIED INFORMATION TECHNOLOGY RESOURCES. (JAN 2011)

(a) The contractor shall protect the confidentiality, integrity, and availability of NASA Electronic Information and IT resources and protect NASA Electronic Information from unauthorized disclosure.

(b) This clause is applicable to all NASA contractors and sub-contractors that process, manage, access, or store unclassified electronic information, to include Sensitive But Unclassified (SBU) information, for NASA in support of NASA's missions, programs, projects and/or institutional requirements. Applicable requirements, regulations, policies, and guidelines are identified in the Applicable Documents List (ADL) provided as an attachment to the contract. The documents listed in the ADL can be found at: http://www.nasa.gov/offices/ocio/itsecurity/index.html. For policy information considered sensitive, the documents will be identified as such in the ADL and made available through the Contracting Officer.

(c) Definitions.

(1) IT resources means any hardware or software or interconnected system or subsystem of equipment, that is used to process, manage, access, or store electronic information.
(2) NASA Electronic Information is any data (as defined in the Rights in Data clause of this contract) or information (including information incidental to contract administration, such as financial, administrative, cost or pricing, or management information) that is processed, managed, accessed or stored on an IT system(s) in the performance of a NASA contract.

(3) IT Security Management Plan--This plan shall describe the processes and procedures that will be followed to ensure appropriate security of IT resources that are developed, processed, or used under this contract. Unlike the IT security plan, which addresses the IT system, the IT Security Management Plan addresses how the contractor will manage personnel and processes associated with IT Security on the instant contract.

(4) IT Security Plan--this is a FISMA requirement; see the ADL for applicable requirements. The IT Security Plan is specific to the IT System and not the contract. Within 30 days after award, the contractor shall develop and deliver an IT Security Management Plan to the Contracting Officer; the approval authority will be included in the ADL. All contractor personnel requiring physical or logical access to NASA IT resources must complete NASA's annual IT Security Awareness training. Refer to the IT Training policy located in the IT Security Web site at https://itsecurity.nasa.gov/policies/index.html.

(d) The contractor shall afford Government access to the Contractor's and subcontractors' facilities, installations, operations, documentation, databases, and personnel used in performance of the contract. Access shall be provided to the extent required to carry out a program of IT inspection (to include vulnerability testing), investigation and audit to safeguard against threats and hazards to the integrity, availability, and confidentiality of NASA Electronic Information or to the function of IT systems operated on behalf of NASA, and to preserve evidence of computer crime.

(e) At the completion of the contract, the contractor shall return all NASA information and IT resources provided to the contractor during the performance of the contract in accordance with retention documentation available in the ADL. The contractor shall provide a listing of all NASA Electronic information and IT resources generated in performance of the contract. At that time, the contractor shall request disposition instructions from the Contracting Officer. The Contracting Officer will provide disposition instructions within 30 calendar days of the contractor's request. Parts of the clause and referenced ADL may be waived by the contracting officer, if the contractor's ongoing IT security program meets or exceeds the requirements of NASA Procedural Requirements (NPR) 2810.1, *Security of Information Technology*, in effect at time of award. The current version of NPR 2810.1 is referenced in the ADL. The contractor shall submit a written waiver request to the Contracting Officer within 30 days of award. The waiver request will be reviewed by the Center IT Security Manager. If approved, the Contractor Officer will notify the contractor, by contract modification, which parts of the clause or provisions of the ADL are waived.

(f) The contractor shall insert this clause, including this paragraph in all subcontracts that process, manage, access or store NASA Electronic Information in support of the mission of the Agency.

(End of clause)

I.15 1852.215-84 OMBUDSMAN. (OCT 2003) -- ALTERNATE I (JUN 2000)

(a) An Ombudsman has been appointed to hear and facilitate the resolution of concerns from Offerors, potential Offerors, and Contractors during the pre-award and post-award phases of this acquisition. When requested, the Ombudsman will maintain strict confidentiality as to the source of the concern. The existence of the Ombudsman is not to diminish the authority of the Contracting Officer, the Source Evaluation Board, or the Selection Official. Further, the Ombudsman does not participate in the evaluation of proposals, the source selection process, or the adjudication of formal contract disputes. Therefore, before consulting with an Ombudsman, interested parties must first address their concerns, issues, disagreements, and/or recommendations to the Contracting Officer for resolution.

(b) If resolution cannot be made by the Contracting Officer, interested parties may contact the installation Ombudsman, Robin Henderson, George C. Marshall Space Flight Center, AL 35812, telephone 256-544-1919, facsimile: 256-544-7920, and e-mail address: Robin.N.Henderson@nasa.gov which is posted at http://prod.nais.nasa.gov/pub/pub_library/omb.html. Concerns, issues, disagreements, and recommendations which cannot be resolved at the installation may be referred to the NASA Ombudsman, the Director of the Contract Management Division, at 202-358-2090. Please do not contact the Ombudsman to request copies of the solicitation, verify offer due date, or clarify technical requirements. Such inquiries shall be directed to the Contracting Officer or as specified elsewhere in this document.

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

(End of clause)

I.16 1852.219-76 NASA 8 PERCENT GOAL. (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.

"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.17 1852.237-72 ACCESS TO SENSITIVE INFORMATION. (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)

I.18 1852.237-73 RELEASE OF SENSITIVE INFORMATION. (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:

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

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

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

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

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

(2) Utilize any sensitive information coming into its possession only for the purpose of performing the services specified in its contract.

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

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

(5) Preclude access and disclosure of sensitive information to persons and entities outside of the service provider's organization.

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

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

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

(e) When the service provider will have primary responsibility for operating an information technology system for NASA that contains sensitive information, the service provider's contract shall include the clause at 1852.204-76, *Security Requirements for Unclassified Information*

Technology Resources. The *Security Requirements* clause requires the service provider to implement an *Information Technology Security Plan* to protect information processed, stored, or transmitted from unauthorized access, alteration, disclosure, or use. Service provider personnel requiring privileged access or limited privileged access to these information technology systems are subject to screening using the standard National Agency Check (NAC) forms appropriate to the level of risk for adverse impact to NASA missions. The Contracting Officer may allow the service provider to conduct its own screening, provided the service provider employs substantially equivalent screening procedures.

(f) This clause does not affect NASA's responsibilities under the Freedom of Information Act.

(g) The Contractor shall insert this clause, including this paragraph (g), suitably modified to reflect the relationship of the parties, in all subcontracts that may require the furnishing of sensitive information.

(End of clause)

I.19 MSFC 52.252-90 REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF OFFERORS OR QUOTERS INCORPORATED BY REFERENCE. (FEB 2001)

The Representations, Certifications, and Other Statements of Offerors or Quoters (Section K of the solicitation document) as completed by the Contractor are hereby incorporated in their entirety by reference, with the same force and effect as if they were given in full text.

(End of clause)

I.20 SECURITY/BADGING REQUIREMENTS FOR FOREIGN NATIONAL VISITORS AND EMPLOYEES OF FOREIGN CONTRACTORS.

(a) An employee of a domestic Marshall Space Flight Center (MSFC) Contractor or its subcontractor who is not a U.S. citizen (foreign national) may not be admitted to the MSFC site for purposes of performing work without special arrangements. In addition, all employees or representatives of a foreign MSFC Contractor/subcontractor may not be admitted to the MSFC site without special arrangements. For employees as described above, advance notice must be given to the MSFC Protective Services Office at least 3 weeks prior to the scheduled need for access to the site so that instructions on obtaining access may be provided.

(b) All visit/badge requests for persons described in paragraph (a) above must be entered in the Identity Credential and Access Management (ICAM) System for acceptance, review, concurrence and approval purposes. When an authorized company official requests a MSFC badge for site access, he/she is certifying that steps have been taken to ensure that its Contractor or subcontractor employees, visitors, or representatives will not be given access to export-controlled or classified information for which they are not authorized. The authorized company officials shall serve as the Contractor’s representative(s) in certifying that all visit/badge request forms are processed in accordance with MSFC security and export control procedures. No foreign national, representative, or resident alien Contractor/subcontractor employee shall be granted access into MSFC until a completed request has been approved and processed through the ICAM. Unescorted access will not be granted unless the MSFC Protective Services Office has completed a favorable Investigation.

(c) The Contractor agrees that it will not employ for the performance of work onsite at the MSFC any individuals who are not legally authorized to work in the United States. If the MSFC Industrial Security Specialist or the Contracting Officer has reason to believe that any employee of the Contractor may not be legally authorized to work in the United States and/or on the contract, the Contractor may be required to furnish copies of Federal Form I-9 (*Employment Eligibility Verification*), U.S. Department of Labor Application for Alien Employment Certification, and any other type of employment authorization document.

(d) The Contractor agrees to provide the information requested by the MSFC Protective Services Office in order to comply with NASA policy directives and guidelines related to foreign visits to NASA facilities so that (1) the visitor/employee/representative may be allowed access to MSFC or other NASA Centers for performance of this contract, (2) required investigations can be conducted, and (3) required annual or revalidation reports can be submitted to NASA Headquarters. All requested information must be submitted in a timely manner in accordance with instructions provided by MSFC or any other Center to be visited.

(End of clause)

I.21 1852.225-71 RESTRICTION ON FUNDING ACTIVITY WITH CHINA. (FEB 2012)

(a) Definition - “China” or “Chinese-owned company” means the People’s Republic of China, any company owned by the People’s Republic of China or any company incorporated under the laws of the People’s Republic of China.

(b) Public Laws 112-10, Section 1340(a) and 112-55, Section 539, restrict NASA from contracting to participate, collaborate, coordinate bilaterally in any way with China or a Chinese-owned company using funds appropriated on or after April 25, 2011. Contracts for commercial and non developmental items are exempted from the prohibition because they constitute purchase of goods or services that would not involve participation, collaboration, or coordination between the parties.

(c) This contract may use restricted funding that was appropriated on or after April 25, 2011. The contractor shall not contract with China or Chinese-owned companies for any effort related to this contract except for acquisition of commercial and non-developmental items. If the contractor anticipates making an award to China or Chinese-owned companies, the contractor must contact the contracting officer to determine if funding on this contract can be used for that purpose.

(d) Subcontracts - The contractor shall include the substance of this clause in all subcontracts made hereunder.

(End of clause)

[END OF SECTION]

PART III – LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS
SECTION J

LIST OF ATTACHMENTS

Attachment	Title
J-l	Performance Work Statement
J-2	Data Procurement Document (DPD)
J-3	Surveillance and Fee Evaluation Plan
J-4	Quality Performance Quarterly Survey
J-5*	Performance Standards
J-6*	Small Business Subcontracting Plan
J-7	Installation-Provided Property and Services
J-8	Applicable Regulations and Procedures
J-9*	Schedule of Fully Burdened/Composite Not-To-Exceed (NTE) Labor Rates ($/Hr), Engineering Technician Overtime Rates, and Indirect and Fee Rate Matrix
J-10	Task Flow Process
J-11	Work Breakdown Structure (WBS)
J-12	DD254 – Department of Defense Contract Security Classification Specification
J-13*	Safety, Health and Environmental (SHE) Plan
J-14	Safety Health Management Implementation Guide and Assessment Matrix
J-15*	Organizational Conflict of Interest (OCI) Plan
J-16	Personal Identity Verification (PIV) Procedures
J-17	Wage Determination
J-18	Acronym List

* TO BE COMPLETED BY OFFEROR

NNM12AA41C

National Aeronautics and Space Administration (NASA) Engineering and Science Services and Skills Augmentation (ESSSA)

Attachment J-1

Performance Work Statement (PWS)

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ATTACHMENT J-1

PERFORMANCE WORK STATEMENT (PWS)

This *Performance Work Statement* (PWS) broadly defines the requirements for Engineering and Science Services and Skills Augmentation (ESSSA) provided to the Marshall Space Flight Center (MSFC) by the Contractor in support of NASA led activities. These services cover a wide range of engineering and science disciplines deployed among a large number and variety of MSFC activities (including support for NASA activities and other reimbursable work for which MSFC has responsibility including in support of DoD, other Government, commercial, or educational activities). The Contractor's work on these activities is controlled by means of Task Orders (TOs) and TO sub-elements (all mention of TOs throughout the PWS includes the TO sub-elements). The TOs range from general support for an organization to specific product oriented tasks. These TOs and TO sub-elements require the Contractor to coordinate with the MSFC Departments, Laboratories, and Offices that exercise MSFC responsibility for the activities. The dynamic nature of the work required by this PWS demands significant flexibility in the allocation of engineering, science, and technical resources among a changing population of TOs. Since MSFC Civil Service engineering and science resources will lead the implementation of work, frequent coordination between Contractor personnel and Civil Service personnel is likely. This PWS is constructed in accordance with the *Work Breakdown Structure* (WBS) provided in Attachment J-11.

1.0 SCOPE

The Contractor shall provide all the necessary management, personnel, and equipment/supplies (not otherwise provided by the Government) required to perform the engineering and science (also referred to throughout the PWS as technical) tasks broadly defined in this PWS and more specifically described in TOs issued by the Government in accordance with Clauses H.5, *1852.216-80 Task Ordering Procedure* and H.6, *Supplemental Task Ordering Procedure* of this solicitation. A graphical depiction of the *Task Flow Process* can be found in Attachment J-10. The list of equipment, supplies, and intellectual property that will be provided by the Government is presented in Attachment J-7*, Installation-Provided Property and Services*. The Contractor shall comply with National Aeronautics and Space Administration (NASA) and MSFC regulations, policies, directives, procedures, and standards when performing all work under this PWS.

2.0 CONTRACT MANAGEMENT AND CONTROL

The Contractor shall provide the planning, coordination, technical direction, and surveillance of the activities necessary to assure disciplined performance of work and timely application of resources for the accomplishment of all TOs and TO sub-elements issued under the contract. The Contractor shall be responsible for maintaining communication with each supported organization and alerting the Contracting Officer Technical Representative (COTR) and Contracting Officer (CO) immediately of any problems that would prevent meeting established objectives. The Contractor shall report and document this work and fulfill the requirements of associated Data Requirement Descriptions (DRDs) as outlined in *Data Procurement Document* (DPD) 1390 (Attachment J-2). The Contractor shall determine the data restriction that applies to

each data deliverable and mark or transmit the data restriction in accordance with section 2.3.3 of the DPD.

2.1 Planning and Control

2.1.1 The Contractor shall establish, implement, and maintain technical management and oversight of all work performed under this PWS. The Contractor shall assure the technical excellence, cost effectiveness, and timeliness of all required work and deliverable products. The Contractor shall provide necessary Human Resources (HR) such as recruiting, hiring, compensation administration, and other HR required activities to provide a highly qualified workforce to perform the requirements of the Task Orders.

2.1.2 The Contractor shall provide the overall management effort required to integrate technical and programmatic functions necessary for achievement of the objectives of the contract. The Contractor shall prepare, implement and maintain a *Management Plan* in accordance with DRD 1390MA-001. In the *Management Plan*, the Contractor shall describe their approach to developing, implementing, and maintaining *Information Technology (IT) Security* in accordance with NFS Clause 1852.204-76 of the contract. This section shall describe the processes and procedures that will be followed to ensure the appropriate security of IT resources that are developed, processed, or used under this contract.

2.1.3 The Contractor shall provide support necessary to effectively administer the Prime contract and any subcontracts issued under it. The Contractor shall ensure that all subcontracts are awarded in accordance with the applicable Federal Acquisition Regulation (FAR) and NASA FAR Supplement (NFS) clauses. Subcontracts shall be closely monitored by the Contractor to ensure effective and efficient performance. The Contractor shall ensure the subcontractor submits invoices to the Contractor in a timely manner (within thirty (30) calendar days of providing services).

2.1.4 The Contractor shall provide, implement, and maintain an *Organizational Conflict of Interest (OCI) Plan*, prepared in accordance with DRD 1390MA-003.

2.1.5 The Contractor shall prepare, submit, implement, and maintain a report identifying and listing all equipment and tools provided by the Government for use by the Contractor in the performance of the contracted effort, and for which the Contractor has been given physical custody. The Contractor shall prepare, submit, implement and maintain a *Government Property Management Plan* in accordance with DRD 1390LS-001.

2.1.6 The Contractor shall establish and implement an industrial safety, occupational health, and environmental program that will (1) provide a workplace that is incident and injury free by (a) preventing employee fatalities, (b) reducing the number of incidents, and (c) reducing the severity of employee injuries and illnesses, (2) protect the environment through the ongoing planning, implementation, integration and management control of these programs, and (3) be compliant with the MSFC SHE Core Program Requirements (CPRs), including their sub-elements, as required by the *Safety, Health, and Environmental (SHE) Plan*, DRD 1390SA-001. The Contractor's SHE Plan shall address each MSFC SHE CPR, including their sub-elements identified as applicable to the contracted effort in sufficient detail to confirm the Contractor has a clear understanding of the MSFC SHE CPRs. Include a matrix that identifies where each MSFC SHE CPR, including their sub-elements, is addressed in the Contractor's SHE Plan:

a. CPR 1 - Management Leadership and Employee Involvement.
b. CPR 2 - Worksite Analysis.
c. CPR 3 - Hazard Prevention and Control.
d. CPR 4 - Safety, Health and Environmental Training.
e. CPR 5 - Environmental Compliance.

2.1.7 The Contractor shall report mishaps and safety statistics to the MSFC Industrial Safety Branch in accordance with the *Mishap and Safety Statistics Report*, DRD 1390SA-003. The Contractor shall submit directly into the NASA Incident Reporting Information System (IRIS) or shall use the forms listed in section 15.4 of DRD 1390SA-003 or an electronic equivalent to report mishaps and related information required to produce the safety metrics.

2.1.8 The Contractor shall submit the *Environmental and Energy Consuming Product Compliance Report* that includes the *Annual Green Purchasing Report, Waste Reduction Activity Report, Energy Efficiency Product Procurement Report, Ozone Depleting Substances (ODS) Notification*, and *Equipment Notifications* in accordance with DRD 1390EE-001.

2.1.9 Critical processes or potentially hazardous operations identified by a NASA program/project can require specific training and/or certification (i.e., buildup, fabrication, operation, and maintenance of research, development or test facilities and ancillary equipment and processes). Personnel performing these critical processes or potentially hazardous operations shall be trained and certified when required by a NASA program/project. The Contractor shall ensure that required training is accomplished. The Contractor shall track and maintain certifications and make them available to the Government upon request or in accordance with the requirements of MWI 3410.1, *Personnel Certification Program* for those critical skills and potentially hazardous operations identified in the MWI. A *Contractor Personnel Certification Plan* shall be prepared and submitted in accordance with DRD 1390SA-002.

2.1.10 The Contractor shall provide technical information concerning any invention, discovery, improvement, or innovation made by the Contractor in the performance of work under this contract. This information will be reported in Technology Reports which shall be prepared in accordance with DRD 1390CD-003.

2.2 Facilities

2.2.1 Work delineated in this PWS shall be performed on-site in MSFC provided facilities and/or in other locations as directed by the Contracting Officer. Adequate Government provided property and services, as identified in Attachment J-7, *Installation-Provided Property and Services,* will be made available to all on-site personnel necessary to accomplish this contract. Contract management shall be at an off-site Contractor's facility. On an exception basis, the CO may authorize short-term or highly specialized tasks to be performed off-site in Contractor provided facilities across the country if deemed advantageous to the Government.

2.2.2 The Contractor shall prepare and submit an *On-Site Employee Location Listing* of all Contractor and subcontractor personnel working on-site at MSFC in accordance with DRD 1390CD-002.

2.3 Financial Reporting

The Contractor shall establish, implement, and maintain a financial reporting system in accordance with the NFS 1852.242-73, *NASA Contractor Financial Management Reporting* and NASA Handbook (NHB) 9501.2. The Contractor shall submit *Financial Management Reports (533M)* in accordance with DRD 1390MA-007 and the *Funding Projection Reports* in accordance with DRD 1390MA-008.

2.4 Task Management

2.4.1 The Contractor shall establish, implement, and maintain an electronic automated task order management system (ATOMS) required to plan, organize, direct, and control contract activities. To this end, the Contractor shall provide the Government with access to the ATOMS, in accordance with the procedures in Clause H.5, *1852.216-80 Task Ordering Procedure,* and Clause H.6, *Supplemental Task Ordering Procedures*, and the process depicted in Attachment J-10, *Task Flow Process*. The Contractor shall provide ATOMS in a manner that is consistent and compatible with Center Information Technology Standards and be 508 compliant, pursuant to The Rehabilitation Act Amendment of 1973, as amended in 1998, Section 508, 29 U.S.C. 794(d) (http://www.section508.gov/). The Contractor's system shall comply with NASA standards for desktop computing, per NASA-STD-2804, *Minimum Interoperability Software Suite,* and NASA-STD-2805, *Minimum Hardware Configuration*. The Contractor shall include an *IT Security Plan* for the ATOMS as part of the *Management Plan* in accordance with DRD1390MA-001. At no direct cost to the Government, the Contractor shall provide a user's guide to the system and Government training on the ATOMS as requested. The ATOMS shall be an interactive system to be used by the Government and the Contractor. The ATOMS shall be hosted on the Contractor's server computer at the Contractor off-site location. ATOMS shall be designed to provide a fast response to 100 concurrent users. The ATOMS shall be ready for Government use thirty (30) calendar days prior to contract commencement.

2.4.2 The ATOMS shall be an integrated system that allows insight and management of the day-to-day requirements described in Clause H.5, *1852.216-80 Task Ordering Procedure* and Clause H.6, *Supplemental Task Ordering Procedure*. This includes development and management of Task Orders (TO), Task Order Requests (TORs), Task Order Change Requests (TOCRs), Task Order Plans (TOPs), Task Order Change Plans (TOCPs), modified Task Orders, Emergency Task Orders and Task Order sub-elements in accordance with DRD 1390MA-002. A TOCR is the same as a TOR except that it describes changes to an existing TO instead of describing a new TO. All TOR requirements shall apply to TOCRs. A TOCP is the same as a TOP except that it describes planned changes to an existing TO instead of describing plans for a new TO. All TOP requirements shall apply to TOCPs. The *Task Order Activity Report*s developed in accordance with DRD 1390MA-005 and the *Funding Projection Report* in accordance with DRD 1390MA-008 shall be standard outputs of the ATOMS.

2.4.3 The ATOMS shall provide a numbering system that provides traceability of TOs throughout their lifetime and shall track the status of TOs/Sub-elements from planning through closure. The ATOMS shall provide TO status notification to the CO, COTR, TO and sub-element initiators; approval tracking; modification tracking; traceability to Contract WBS Level 4 or lower; delineation of inactive and active TOs; period of

performance for the TO/Sub-element; and negotiated estimated cost and fixed fee per TO and by evaluation period.

2.4.4 Specific information to be contained in the ATOMS for the TORs shall include the following: a TOR number allowing traceability to a Contract WBS Level 4 or lower; TO Initiator and Resource Analyst; Project WBS, Cost Center and Fund; TO description and objectives; travel requirements; materials; equipment; Government furnished equipment and information; proposed performance standards, deliverables and milestone dates; and special instructions.

2.4.5 The ATOMS shall allow for the electronic routing and approval of TOs and maintain a history of the approval process. The routing and approval process shall include the COTR and the CO, respectively, as the final approvers prior to beginning work on a TO. The Government shall specify any other reviewers to be included in the routing process. The ATOMS shall have the capability for the Government to add or edit the funding information (project WBS, Cost Center, and Fund) for each sub-element within the TO during the routing and approval process.

2.4.6 The ATOMS shall report the TO and sub-element data by the Contract WBS for each sub-element as developed by the Contractor and provided in their *Work Breakdown Structure and WBS Dictionary*. This *WBS and WBS Dictionary* shall be developed in accordance with DRD 1390MA-004 using Attachment J-11, *Work Breakdown Structure*. This data is required by the *Task Order Activity Reports* that status each TO and sub-element on a monthly basis in accordance with DRD 1390MA-005.

2.4.7 The ATOMS shall interface with the Contractor's Financial System to provide Financial Reporting, in a formatable/sortable Excel spreadsheet format, containing the financial reporting requirements outlined in DRD 1390MA-007, *Financial Management Report (533M)*, DRD 1390MA-008 *Funding Projection Report* and DRD 1390MA-005, *Task Order Activity Reports*. The ATOMS shall provide the *Active Task Order Summary Report* and *Contract Year Task Order Value Summary Report* as specified in DRD 1390MA-009, *Weekly Contract Status Briefing*.

2.4.8 The ATOMS shall allow the Government to input and collect anticipated funding information [Project Work Breakdown Structure (WBS), Cost Center, Fund and amount of funding] cross-walked to individual TO sub-elements. The information collected represents planning data for incremental funding modifications. The Contractor shall not construe the preliminary collection of this data as actual funding applied to the contract until receipt of a formal modification signed by the CO. After receipt of the modification, the Contractor shall use the data for tracking and reporting purposes.

2.4.9 The ATOMS shall have the capability of tracking actual cost back to the Contractor's *Financial Management Reporting* (DRD 1390MA-007) at all levels down to the TO sub-element level. The ATOMS shall record projected and actual resources data for each TO/Sub-element.

2.4.10 The ATOMS shall track funding (to include Project WBS, Cost Center and Fund), cost, and Work-Year Equivalents (WYEs) at the TO/Sub-element level. In cases where the Task Order specifies tracking at a lower level on a TO sub-element, cost detail shall be delineated to a level lower than TO sub-element. An example where this may be needed is for individual tests within a project or sub-system. The ATOMS shall provide

visibility to funding provided by the customer and track the associated cost by the Contractor developed *WBS*.

2.5 Contractor Procurements

2.5.1 With the exception of the property listed in the *Installation-Accountable Government Property* Clause (NFS 1852.245-71), the Contractor shall procure non-quality sensitive materials, supplies, tools, and equipment necessary for the accomplishment of this PWS. Total acquisition cost of an individual procurement shall not exceed $150,000 unless approved by the CO. The Contractor shall not purchase the IT products specified in Attachment J-7, *Installation Provided Property and Services* as Desktop Services and Software. The Contractor shall only purchase items needed to meet the requirements of the TOs. The Contractor shall not purchase quality sensitive items such as raw materials or supplies that will become part of a quality sensitive product, or lifting and handling fixtures that deal with quality sensitive hardware.

2.5.2 In accordance with the NFS Clause 1852.245-71, *Installation-Accountable Government Property*, accountability for property which is acquired for the Government shall be transferred to the Government using the following procedure:

The transfer of accountability shall be initiated by the Contractor submitting a MSFC Form 4554, *Transfer and Shipping Document* (or equivalent DD Form 1149), accompanied by a copy of the Contractor's applicable purchasing and receipt document for the property. The Contractor shall reference both the Contractor's Subcontract/Purchase order number and the Government contract number on the Form 4554. For purchases of supplies and materials (exception only material items purchased to repair equipment), this document shall be submitted within thirty (30) calendar days after the end of each calendar-year quarter (that is, not later than January 30, April 30, July 30, and October 30). For equipment purchases, the Form 4554 shall be submitted within ten (10) working days after acceptance of each item of equipment by the Contractor.

2.6 Evaluation

2.6.1 The Government will evaluate the Contractor's performance in accordance with Attachment J-3, *Surveillance and Fee Evaluation Plan*. To aid in this evaluation, the Contractor shall prepare and submit a *Contractor Self-Assessment Report* in accordance with DRD 1390MA-006 that assesses the performance of the contract tasks.

2.6.2 The Contractor shall provide performance information to aid in the Government's decision to exercise options for renewal of the contract. This information shall be provided in an *Option Decision Package* prepared in accordance with DRD 1390CD-001.

2.7 Technical Reporting

The Contractor shall prepare and submit a *Final Scientific and Technical Report* that complies with the requirements of NFS 1852.235-73, *Final Scientific and Technical Reports* as required by a specific Task Order and/or sub-element. A final report that summarizes the results of the entire contract is not required. If a final report is required by a TO, the final report shall summarize the results of the TO.

3.0 CONTRACT MAJOR SKILL CATEGORIES

The Contractor shall provide and manage the services described in this section as required by TOs. The services are organized into major skill categories. Each major skill type as described will envelope various skills that may be required to produce deliverables and products per TO/Sub-elements in this contract. The description is not intended to cover all skills or products required in this contract, instead it is intended to give an idea of what types of skills and products may be required over the life of the contract. The actual skills required for this contract are dependent upon the content of TOs and may not include all skills listed in this PWS. There also may be additional skills or products required in these topic areas that are not listed. These skills may range from entry level to journeyman to Subject Matter Experts, depending on the varied requirements to produce products and deliverables defined in individual TO/Sub-elements. Skills may also be classified as highly-specialized or mission critical. Highly-specialized skills require personnel with very unique skills as a result of years of specialized training and/or experience. Mission critical skills are skills required at the start of the contract and require extensive specialized training or experience to support the development or operation of specific flight hardware, laboratory, and/or analysis related activities. The skills themselves are not necessarily “highly-specialized” but the individual’s knowledge/experience is critical to the hardware or program/project being supported.

3.1 Aerodynamics Design, Analysis and Test

The Contractor shall provide aerodynamics skills to support the design, development, analysis, integration, simulation, modeling, and testing of space systems, propulsion systems, space transportation systems, scientific research equipment, ground support equipment, and special equipment for current and future programs or projects. The Contractor shall deliver products associated with areas of aeroacoustics, aerodynamic flight control surfaces, venting, aerodynamic heating, plume induced pressure, forces and heating, Guidance, Navigation and Control (GN&C) flight systems, thermal analysis and controls, flight mechanics, fault management, dynamics, loads, strengths, avionics, sensors, aerodynamic testing (e.g., wind tunnel) and analysis, analytical tool development and control systems. The Contractor shall provide support for and generate products associated with research and new technology development for aerodynamics design, analysis and test areas.

Elaboration of WBS structure including the WBS identifier shown in the examples below can be found in Attachment J-11, *Work Breakdown Structure (WBS)*.

Two WBS examples are:

ES.1.7.33.xx.xx.xx.xx.xx.
ESSSA Contractor Aerodynamics Design, Analysis and Test skills supporting Spacecraft & Vehicle Systems, Aerosciences for Program X for Project Y.

ES.1.10.61.xx.xx.xx.xx.xx
ESSSA Contractor Aerodynamics Design, Analysis and Test skills supporting Science and Mission Systems, Earth Science for Program X for Project Y.

3.2 Avionics Design, Analysis and Test

The Contractor shall provide avionics skills to support the design, development, analysis, and testing of space systems, propulsion systems, space transportation systems, scientific experiments, ground support equipment, and special equipment for current and future programs or projects. The Contractor shall deliver products associated with areas such as aerospace integrated systems health management, aerospace systems avionics fault management, avionics fault management, avionics control, avionics emulators (real-time & non real-time), instrumentation and controls, data systems, digital systems, embedded control electronics, avionics sensors and instrumentation, avionics video, avionics control electronics, avionics motors, signal conditioning, data systems, flight and ground computers, Radio Frequency (RF) systems, Global Positioning System (GPS), range safety, audio, Field-Programmable Gate Array (FPGA), optics, expert avionics and software systems integration. Example products include the design, development, assembly, test, analysis, modeling and/or simulation of the following: development hardware, prototype hardware, flight hardware, ground hardware, payloads, subsystems, science investigations, exploration initiatives, and analytical tools. In some cases, as detailed in a TO or sub-element, real-time support for investigation of flight system anomalies shall be required. The Contractor shall provide support for and generate products associated with research and new technology development for avionics design, analysis and test areas.

Five WBS examples are:

ES.2.5.12.xx.xx
ESSSA Contractor Avionics Design, Analysis and Test skills supporting Space Systems, Avionics & Systems Integration for Program X for Project Y.

ES.2.5.31.xx.xx
ESSSA Contractor Avionics Design, Analysis and Test skills supporting Space Systems, Sensors, Imaging & Optics for Program X for Project Y.

ES.2.5.41.xx.xx
ESSSA Contractor Avionics Design, Analysis and Test skills supporting Space Systems, Electrical Power for Program X for Project Y.

ES.2.5.53.xx.xx
ESSSA Contractor Avionics Design, Analysis and Test skills supporting Space Systems, Avionics and Software Ground Systems Test for Program X for Project Y.

ES.2.10.20.xx.xx
ESSSA Contractor Avionics Design, Analysis and Test skills supporting Science & Missions Systems, Science Program & Projects for Program X for Project Y.

3.3 Electrical Engineering Design, Analysis and Test

The Contractor shall provide electrical engineering skills to support the design, development, analysis, and testing of space systems, propulsion systems, space transportation systems, scientific instruments, ground support equipment, and special equipment for current and future programs or projects. The Contractor shall deliver products in areas such as: electrical design and integration, electro-mechanical design,

analysis and assembly, power electronics (converters, inverters, regulators), power quality, electrical power systems (batteries, solar arrays, fuel cells), electrical integration (cable design, cable interconnect diagrams, electrical system schematics), electromagnetic environmental effects (EMI/EMC, lightning, electrostatic discharge), Electrical, Electronic and Electromechanical parts (EEE Parts), electronic packaging, electrical/electronic failure analysis, control and signal conditioning electronics, low power amplifiers, instrumentation, data acquisition systems hardware and software, control system design and test, automatic feedback control circuits and systems (neural networks, fuzzy logic, adaptive control), sensor micro-fabrication, harsh environment sensor research, precision rate and position environmental control systems, optical sensor research, structural health monitoring research, avionics emulators (real-time and non real-time). The Contractor shall provide electrical engineering technician skills which include Printed Circuit Board (PCB) design and construction, surface-mount component installation, test and characterization of new technology such as vendor supplied electric motors, cable fabrication, harsh environment sensor research and Computer-Aided Design (CAD) for cables and schematics. Examples of these products include the research, design, development, implementation, assembly, verification, test, analysis, and modeling and simulation of: prototype hardware, flight hardware, ground hardware, payloads, subsystems, science investigation hardware, and analytical tools. In some cases, real-time support for an investigation of flight system anomalies shall be required. The Contractor shall provide support for and generate products associated with research and new technology development for electrical engineering design, analysis and test areas.

Six WBS examples are:

ES.3.7.43.xx.xx
ESSSA Contractor Electrical Engineering Design, Analysis and Test skills supporting Spacecraft & Vehicle Systems, Integrated Systems Health Management & Sensors for Program X for Project Y.

ES.3.6.60.xx.xx
ESSSA Contractor Electrical Engineering Design, Analysis and Test skills supporting Test, Propulsion Systems Test for Program X for Project Y.

ES.3.5.51.xx.xx
ESSSA Contractor Electrical Engineering Design, Analysis and Test skills supporting Space Systems, Software Systems Engineering for Program X for Project Y.

ES.3.6.32.xx.xx
ESSSA Contractor Electrical Engineering Design, Analysis and Test skills supporting Test, Structural Strength Test for Program X for Project Y.

ES.3.6.40.xx.xx
ESSSA Contractor Electrical Engineering Design, Analysis and Test skills supporting Test, Structural Dynamics Test for Program X for Project Y.

ES.3.10.22.xx.xx
ESSSA Contractor Electrical Engineering Design, Analysis and Test skills supporting Science & Mission Systems, Space Systems Programs/Projects for Program X for Project Y.

3.4 Guidance, Navigation, and Control (GN&C) Design and Analysis

The Contractor shall provide GN&C skills to support the design and analysis of space systems, propulsion systems, space transportation systems, scientific research experiments, and special equipment for current and future programs or projects. The Contractor shall be proficient in performing six degree of freedom vehicle simulation and frequency domain control system design and stability analysis. The Contractor shall deliver products such as aerodynamic flight control components, trajectory design, navigation design, separation systems analysis, orbital mechanics, control theory and algorithms, vehicle dynamics, dynamical system theory, control systems design, and propulsion dynamics. These products shall include design, development, analysis, integration, analytical tool development, simulation and modeling. The Contractor shall provide support for and generate products associated with research and new technology development for GN&C design and analysis areas.

Two WBS examples are:

ES.4.7.41.xx.xx.xx.xx.xx.
ESSSA Contractor Guidance, Navigation, and Control (GN&C) Design and Analysis skills supporting Spacecraft & Vehicle Systems, Control Systems Design and Analysis for Program X for Project Y.

ES.4.4.35.xx.xx.xx.xx.xx.
ESSSA Contractor Guidance, Navigation, and Control (GN&C) Design and Analysis skills supporting Propulsion Systems, Thrust Vector Control Systems Integration & Components for Program X for Project Y.

3.5 Manufacturing and Assembly (M&A)

The Contractor shall provide M&A engineering and technical skills to support, operate, service, maintain, and deliver products related to the development, design, and analysis of aerospace manufacturing, fabrication, production, integration, assembly, inspection, repair, refurbishment, and materials processes, including the associated tooling, capabilities, and facilities used to construct and produce materials, parts, components, subsystems, and hardware systems for space flight and launch vehicles, spacecraft, scientific instruments or experiment hardware, prototype/test articles, ground support and special test equipment. M&A products shall include advanced materials manufacturing and processing of composites, hybrid composites, structural, coatings/protective finishes, thermal protection/insulation systems; propulsion systems; and light-weight, high-temperature and other high performance metallic, non-metallic, and materials. Additional M&A skills and products shall include advanced, large scale, automated, and robotic processes such as: thermo-mechanical (e.g. forming, heat treatment, curing); chemical and formulation; Non-Destructive Evaluation (NDE); rapid prototyping; machining; contamination control/precision cleaning; coating/finishing and surface treatment; materials joining technologies (e.g. fusion and solid state welding, brazing, soldering, adhesive bonding); digital manufacturing assembly and photogrammetry and statistical process control/lean six sigma methodologies. The Contractor shall also provide products supporting the development, integration, verification, and validation of M&A processes including: production of demonstration/prototype and test articles; producibility and inspectibility analysis; tooling design and processing standards; intelligent, integrated, digital manufacturing planning and solutions; kinematic and photogrammetry analysis;

data management/engineering tools for simulation, modeling, and product life cycle/supply chain integration. The Contractor shall provide products for fabrication and purchase of fixtures, equipment, tooling and analytical tool development required for the operation, maintenance, and testing of MSFC M&A facilities and capabilities. The Contractor shall provide support for and generate products associated with research and new technology development for manufacturing and assembly areas.

Three WBS examples are:

ES.5.2.32.xx.xx.xx.xx.xx.
ESSSA Contractor Manufacturing and Assembly skills supporting Materials and Processes Laboratory, Metals Joining and Processes for Program X for Project Y.

ES.5.5.23.xx.xx.xx.xx.xx.
ESSSA Contractor Manufacturing and Assembly skills supporting Space Systems, Mechanical Fabrication for Program X for Project Y.

ES.5.2.42.xx.xx.xx.xx.xx.
ESSSA Contractor Manufacturing and Assembly skills supporting Materials and Processes Laboratory, Nonmetallic Manufacturing for Program X for Project Y.

3.6 Materials Design, Analysis and Test

The Contractor shall provide materials engineering and technical skills to deliver products supporting the design, analysis and testing of metallic and non-metallic materials for use in parts, components, subsystems, and hardware systems for space flight and launch vehicles, spacecraft, scientific instruments or experiment hardware, test articles, ground support and special test equipment. The Contractor shall deliver products in areas such as research, development, evaluation, selection, specification, and verification of engineering materials, processing and systems for specific hardware design applications and usage environments. Examples of testing and analysis products include the following: characterization of materials to define their design properties/allowables and determine how they will perform/degrade in their intended or worse case natural, induced, operational or space usage environments; determine materials tolerance to damage, fracture and fatigue in order to predict their service and safe life capabilities; and determine if materials are compatible with the reactive or working fluid systems in which they are used (e.g., oxygen, hydrogen, coolants, hydraulic fluids, chemical media/working fluids, hypergolic and chemical propellants). The Contractor shall also deliver analysis products such as: analytical and environmental chemistry; fracture mechanics/fatigue and service/useful life assessments; sustainability/risk assessment of materials obsolescence and impact due to Environmental, Safety, and Health restrictions/regulations; and failure analysis. Materials engineering skills shall be provided to deliver advanced material products which may include: advanced/hybrid composites; polymeric/elastomeric materials; structural/adaptive materials; coatings/protective finishes; tribology/lubrication systems; high temperature, leading edge and aerothermal surface insulation/TPS materials and processes development, thermal protection/insulation system cryogenic/high-temperature materials (e.g., foams, ablatives, ceramics, nozzle/leading edge composites); and other light-weight/high-performance metals and non-metals. Additional products, skills, and services shall be required for operations and maintenance of materials test, analysis, formulation, and development facilities, as well as development of materials data management, modeling and analytical tools for materials selection,

assessment, and evaluation. The Contractor shall provide support for and generate products associated with research and new technology development for materials design, analysis and test areas.

Three WBS examples are:

ES.6.2.31.xx.xx.xx.xx.xx.
ESSSA Contractor Materials Design, Analysis and Test skills supporting Materials and Processes, Failure Analysis and Metallurgy for Program X for Project Y.

ES.6.2.41.xx.xx.xx.xx.xx.
ESSSA Contractor Materials Design, Analysis and Test skills supporting Materials and Processes, Nonmetallic Materials for Program X for Project Y.

ES.6.2.60.xx.xx.xx.xx.xx.
ESSSA Contractor Materials Design, Analysis and Test skills supporting Materials and Processes, Materials Selection and Control and Project Engineering for Program X for Project Y.

3.7 Structural and Mechanical Design and Analysis

The Contractor shall provide structural and mechanical skills to support the design and analysis of space systems, including but not limited to space vehicle structures, thrust structures, propellant and oxidizer tanks, vehicle health maintenance/management systems, stage and payload separation systems, pyrotechnics systems, rocket engines, propulsion systems and components, space transportation systems, scientific experiment or instrument hardware, ground support equipment, special test equipment including items such as optical system support stands and translation stages, precision alignment devices, helium-cooled enclosures, and optical instrumentation access platforms as well as special test equipment for current and future programs or projects. Design and analysis support shall include integration and support of testing activities (e.g., interfacing with manufacturing, hardware integration, and testing disciplines) as well as post-flight correlation and reconstruction. The Contractor shall provide multi-body integrated vehicle loads analyses for all ground, flight, in-space, and return flight events (i.e., rollout, on pad pre-launch, liftoff, first stage flight, second stage flight, separation, docking, reentry, landing and water impact). The Contractor shall provide development and integration of finite element models within the NASTRAN structural analysis code (substructure modeling, dynamic reductions, and extraction of math models from NASTRAN to independent analysis code formats including Fortran and MATLAB). The Contractor shall provide skills to provide analyses and tools for computing loads associated static elastic air loads, wind induced oscillations, Monte Carlo simulations for liftoff, dynamic gust loads, transonic buffet loads, elastic vehicle maneuvering loads, probabilistic loads combination equations, and analysis of parachute and water impact loads. The Contractor shall deliver products in areas such as design and analysis of: structures, mechanical devices, ground support equipment, special test equipment, tooling, mechanisms, composite designs, CAD standards and processes, strength (stress) analysis, fatigue analysis, fracture analysis, damage tolerance assessment, component loads analysis, vehicle coupled loads analysis, linear and nonlinear dynamics analysis, rotordynamic analysis of high speed machinery such as turbopumps, vibroacoustic analysis, microgravity analysis, shock, payload isolation analysis, pressure systems management, structural dynamic analysis of turbomachinery, turbopump rotordynamic analysis, modeling of physics effects of alumina

accretion, film cooling thermal analysis and analysis of ground and flight test data. The Contractor shall deliver products such as test criteria and requirements (e.g., load, vibration, acoustic, and shock), models and simulations for verification activities. Structural and mechanical design and analysis products shall be required for all phases of flight, ground and research projects, such as conceptual design, primary and secondary structure detailed design, mechanical drawings, 3D models, test articles, breadboard units, turbomachinery (including inducers, impellers, diffusers, turbines, bearings, seals, and housings), combustion devices (including injectors, cooled and uncooled chambers, nozzles, pre-burners, gas generators, and ignition systems), actuators, valves, regulators, lines, ducts, thrust vector control systems (including actuators, valves, reservoirs, and power units), pyrotechnics systems design, electrical cable routing between components, loads analysis, stress analysis, fracture analysis, and meteoroid-orbital debris impact and other debris assessments. The Contractor shall provide support for and generate products associated with research and new technology development for structural and mechanical design and analysis areas.

Five WBS examples are:

ES.7.5.21.EC.xx.xx.10.34.IS.
ESSSA Contractor Structural and Mechanical Design and Analysis skills supporting Space Systems, Structural and Mechanical Design for the International Space Station (ISS) Program for the Environmental Control and Life Support Systems (ECLSS) Project.

ES.7.5.22. EC.xx.xx.10.34. IS.
ESSSA Contractor Structural and Mechanical Design and Analysis skills supporting Space Systems, Thermal and Mechanical Analysis for the International Space Station (ISS) Program for the Environmental Control and Life Support Systems (ECLSS) Project.

ES.7.7.31.xx.xx.xx.xx.xx.
ESSSA Contractor Structural and Mechanical Design and Analysis skills supporting Spacecraft & Vehicle Systems, Dynamics Loads and Strengths for Program X for Project Y.

ES.7.4.34.xx.xx.xx.xx.xx.
ESSSA Contractor Structural and Mechanical Design and Analysis skills supporting Propulsion Systems, Propulsion Detailed Design for Program X for Project Y.

ES.7.6.50.xx.xx.xx.xx.xx.
ESSSA Contractor Structural and Mechanical Design and Analysis skills supporting Test Laboratory, Special Test Equipment for Program X for Project Y.

3.8 Operability Design, Analysis and Test

The Contractor shall provide operability skills to support the design and analysis of space systems, propulsion systems, space transportation systems, scientific experiments and instruments, ground support equipment, and special equipment for current and future programs or projects. The Contractor shall deliver products in areas such as ground operations integration and implementation; ground support equipment integration and implementation; ground support systems development; logistics planning and analysis;

and test integration and implementation. These products include *Ground Operations Plan, Ground Operations Requirements Document, Ground Support Equipment (GSE) Plan,* GSE Mechanical and Electrical Design Specifications, Support Equipment Management Database, *Integrated Logistics Plan*, Supportability Analysis, Availability Analysis, Vehicle Operations Analysis, Verification Planning and Implementation, Functional Objective Development, Ground Processing Timelines and Detailed Technical Operations Based Cost Assessment. The Contractor shall provide support for and generate products associated with research and new technology development for operability design and analysis areas.

Two WBS examples are:

ES.8.3.40.xx.xx.xx.xx
ESSSA Contractor Operability Design, Analysis and Test skills supporting the Ground Operations and Logistics for Program X for Program Y.

ES.8.3.30.xx.xx.xx.xx
ESSSA Contractor Operability Design, Analysis and Test skills supporting the Ground Operations, Space Systems Operations for Program X for Program Y.

3.9 Natural and Induced Environments Design, Analysis and Test

The Contractor shall provide natural and induced environments skills to support design, analysis, and testing of space systems, space transportation systems, science experiments and instruments, ground support equipment, and special equipment for current and future programs or projects. The Contractor shall deliver products in areas such as atmospheric science, atmospheric influence on launch vehicles and spacecraft, atmospheric influence on operations, atmospheric modeling and programming, space environment characterization, space environment modeling and programming, spacecraft charging and plasma environment, lightning effects, meteoroid and orbital debris environment physics, meteoroid and orbital debris environment modeling and programming, meteoroid and orbital debris impact analysis, and plume induced environments. The Contractor shall deliver products to include the design, development, assembly, test, analysis, modeling and simulating of the following: prototype hardware, flight hardware, ground hardware, payloads, subsystems, science investigations, data management and analytical tools. The Contractor shall provide support for and generate products associated with research and new technology development for natural and induced environments design, analysis and test areas.

Three WBS examples are:

ES.9.7.44.xx.xx
ESSSA Contractor Natural and Induced Environments Design, Analysis and Test skills supporting Spacecraft & Vehicle Systems, Natural Environments for Program X for Project Y.

ES.9.7.32.xx.xx
ESSSA Contractor Natural and Induced Environments Design, Analysis and Test skills supporting Spacecraft & Vehicle Systems, Structural and Mechanical Design for Program X for Project Y.

ES.9.7.33.xx.xx
ESSSA Contractor Natural and Induced Environments Design, Analysis and Test skills supporting Spacecraft & Vehicle Systems, Aero-sciences for Program X for Project Y.

3.10 Optics Design, Analysis and Test

The Contractor shall provide optics skills to support the design, analysis, and testing of space systems, propulsion, space transportation systems, scientific instrument components, ground support equipment, and special equipment for current and future programs or projects. The Contractor shall provide skills to support on-going flight hardware for advanced optical systems and initiatives for advancing state-of-the-art optics design and manufacturing technologies (e.g., manufacturing of mandrels and Fresnel lenses) for experimental and prototype ground, aircraft, and space instruments in the visible, ultraviolet, infrared, and x-ray spectrums. The Contractor shall provide skills that include expertise in optical and optomechanical design and analysis, camera design, optical inspection devises, lasers, lenses, medical imaging devices, navigation equipment, safety monitoring devices, satellites, telescopes and video hardware to provide optical products such as design, analysis, hardware fabrication, optical sensor research and testing of high-quality optics. The Contractor shall deliver products in areas such as advanced optical systems development; diffractive optics, coatings, and surface metrology; optical design, analysis and fabrication; optical test and manufacturing.

The Contractor shall provide optics skills and deliver products to support the fabrication, cleaning, integration, and installation of Special Test Equipment (STE) in support of cryogenic optical testing at the X-Ray Calibration Facility (XRCF). The Contractor shall provide support for and generate products associated with research and new technology development for optics design, analysis and test areas.

Two WBS examples are:

ES.10.5.31.xx.xx.xx.xx.xx.
ESSSA Contractor Optics Design, Analysis and Test skills for Program X for Project Y.

ES.10.10.63.xx.xx.xx.xx.JW.
ESSSA Contractor Optics Design, Analysis and Test skills for Science & Mission Systems, Optics Office for the James Webb Space Telescope

3.11 Propulsion System Design, Analysis and Test

The Contractor shall provide propulsion system design, analysis and testing skills to support and deliver products in areas such as components, subsystems, and systems for liquid (cryogenic, storable, monopropellant, bipropellant, and dual mode), gas, solid, and advanced propulsion systems for both launch vehicle and in-space applications. Examples of these products shall include design, analysis, development, evaluation, integration, and verification of systems such as liquid main propulsion, pump-fed engine, pressure fed engine, orbital maneuvering, roll control, reaction control, de-orbit propulsion, solid motor, booster tumble, booster deceleration, upper stage settling, launch abort, jettison, altitude control, thrust vector control, nuclear power, nuclear fission propulsion,

nuclear fusion propulsion, antimatter, electric propulsion, solar thermal propulsion, solar electric, solar power, solar sail, tether, aero-capture, advanced chemical propulsion, pressurization, propellant storage, valves, lines, ducts, advanced cryogenic fluid management, advanced in-space non-chemical, electric and plasma based propulsion and propellant delivery. Other products shall include the design, analysis, development, evaluation, and/or verification of propulsion system trade studies, solid propellant grain designs, solid motor igniters, solid motor nozzles, ground testing of propulsion system hardware, advanced propellants, green propellants, solid motor ballistics, analytical tools and techniques used to model engine and main propulsion systems, and cryogenic fluid management approaches. The Contractor shall provide support for and generate products associated with research and new technology development for propulsion design, analysis and testing areas.

Two WBS examples are:

ES.11.4.33.xx.xx.xx.xx.xx.
ESSSA Contractor Propulsion System Design, Analysis and Test skills supporting Propulsion Systems, Spacecraft and Auxiliary Propulsion Systems, for Program X for Project Y.

ES.11.10.61.xx.xx.xx.xx.xx
ESSSA Contractor Propulsion System Design, Analysis and Test skills supporting Propulsion Systems, Structural and Dynamics Analysis for Program X for Project Y.

3.12 Scientific Disciplines Design, Analysis and Test

The Contractor shall provide engineering and science skills to support scientific disciplines such as ground and space based research investigations, programs and projects in areas such as space science, earth science and related technologies. Space science discipline skills shall include solar physics, space plasma physics, x-ray astronomy, gamma-ray astronomy, cosmic ray research, and other astrophysics disciplines. Earth science discipline skills shall include infrared and microwave remote sensing technology, lightning studies, land processes, atmospheric chemistry, atmospheric aerosols, atmospheric modeling, Light Detection and Ranging (LIDAR), wind measurements, airborne experiments and field campaigns, advanced information systems requirements definition, and archeological studies associated with the global water cycle. The Contractor shall provide skills and products in areas such as program, project and portfolio formulation and implementation consisting of concepts and requirements definition; technology assessment and development; reviews; analytical integration; test operations; hardware development, maintenance, refurbishment, and certification; systems integration; mission operations; Environmental Control and Life Support System (ECLSS) water recovery, ECLSS air revitalization; Taurus/Cygnet, ECLSS, Materials Science Research Rack (MSRR), Microgravity Science Glovebox (MSG), Express Rack, Window Observation Research Facility (WORF), and James Webb Space Telescope (JWST) mission support; JWST/XRCF operation and maintenance, and data analysis. The Contractor shall provide support for and generate products associated with research and new technology development for scientific discipline areas.

Two WBS examples are:

ES.12.10.61.xx.xx.xx.xx.xx
ESSSA Contractor Space science support to the GLAST Burst Monitor (GBM) for the Science Mission Directorate.

ES.12.10.62.xx.xx.xx.xx.xx
ESSSA Contractor Earth science discipline support to the Omega: Instruments for Soil Moisture Mapping project for the Science Mission Directorate.

3.13 Spacecraft and Space Systems Software Design, Analysis and Test

The Contractor shall provide spacecraft and space systems software skills to support and deliver products in areas such as embedded vehicle flight control software, ground support software, software based avionics redundancy management and simulation systems software. The Contractor shall provide skills necessary to define, design, code, integrate, test, certify, configuration control, operate and maintain software development facilities; ground systems test facilities, and operations facilities. The Contractor shall provide the skills to support all software life-cycle development phases for Capability Maturity Model Integration (CMMI) maturity level 3 embedded flight software, CMMI maturity level 2 ground test software, and reconfigurable computing and mission critical GN&C software (for both manned and unmanned missions). The Contractor shall provide products in support of software requirements development, processes and planning, formal validation and verification planning, test planning, and development of software. The Contractor shall also be required to provide support for and generate products associated with research and new technology development for spacecraft and space systems software requirements, design, code, integration, test, and analysis areas.

Two WBS examples are:

ES.13.7.41.xx.xx.xx.xx.xx.
ESSSA Contractor Spacecraft and Space Systems Software Design, Analysis and Test skills supporting Spacecraft & Vehicle Systems, Control Systems Design and Analysis for Program X for Project Y.

ES.13.5.52.xx.xx.xx.xx.xx
ESSSA Contractor Spacecraft and Space Systems Software Design, Analysis and Test skills supporting Space Systems, Software Development for Program X for Project Y.

3.14 Systems Engineering

The Contractor shall provide systems engineering skills in support of programs, projects and activities to manage, assess, and perform systems engineering life cycle processes. The Contractor shall develop products/tools associated with technical requirements definition, logical decomposition, design solution definition, product implementation, product integration, product verification, product validation, product transition, technical planning, requirements management, interface management, technical risk management, technical assessment, decision analysis, and support of technical data. These skills may require use of various systems engineering tools such as Model-Based Systems Engineering (MBSE), and requirements and validation tools.

Three WBS examples are:

ES.14.7.91.xx.xx.xx.xx.xx.
ESSSA Contractor Systems Engineering skills supporting Spacecraft & Vehicle Systems, Vehicle Systems Design and Integration for Program X for Project Y.

ES.14.4.20.xx.xx.xx.xx.xx
ESSSA Contractor Systems Engineering skills supporting Propulsion Systems Design and Integration for Program X for Project Y

ES.14.5.13.xx.xx.xx.xx.xx
ESSSA Contractor Systems Engineering skills supporting Space Systems, Systems and Engineering for Program X for Project Y.

3.15 Test Design and Operations

The Contractor shall provide test skills to support areas such as flight vehicles, spacecraft, and associated subsystems; ground support equipment; ground test systems, control test systems, propulsion systems and components; structural test articles; payload systems and space experiments/environments; maintenance and repair of cryogenic and vacuum systems; and experimental evaluation of technology and research investigations as well as any other commercial or Governmental requested test that may not be related to aerospace technology. The Contractor shall deliver products such as test design, plans, procedures, testing schedules, coordination, facility adaptation and activation, test conduction, data acquisition, data recording, data evaluation, and test reporting. The Contractor shall also provide engineering and integral technician support, for areas such as design, analysis, fabrication oversight, integration, and operation of fluid systems (including high pressure gases, hazardous propellants, cryogenics, and hydraulics), equipment (including valves, actuators, pumps, vessels, sensor signal conditioning electronics, data acquisition components, and hardware control electronics), fixtures, specific tooling, test instrumentation systems (including sensor specifications and installation, validation, and usage approaches), automation and control (including remote operation, closed loop control, man-machine interfaces, real-time sequences and interlocks, power supplies, relays, conversion, protection and control and electrical power distribution), and data acquisition (including recording, viewing, calibration, verification, and feedback).

The Contractor shall provide pressure systems management engineering and integral technician “certification team” skills to support the performance and certification maintenance for pressure systems at MSFC. In order to accomplish initial certifications and to maintain the certification status of existing systems, the Contractor shall provide various specific tasks and products such as development of pressure system designs per applicable ASME/ANSI Code; periodic inspections and tests; maintenance of operating records; re-evaluation of certification status when changes occur; and maintenance of certification data packages as official quality records. The Contractor shall provide support for and generate products associated with research and new technology development for test design and operations areas.

Two WBS examples are:

ES.15.7.83.xx.xx.xx.xx.xx.
ESSSA Contractor Test Design and Operations skills supporting Spacecraft & Vehicle Systems, Stage Test & Flight Evaluations for Program X for Project Y

ES.15.4.32.xx.xx.xx.xx.xx
ESSSA Contractor Test Design and Operations skills supporting Propulsion Systems, Combustion Devices Design & Development for Program X for Project Y

3.16 Thermal and Fluids Design, Analysis and Test

The Contractor shall provide the thermal and fluids design, analysis and testing skills required to support areas such as components, subsystems, and systems for instruments, payloads, launch vehicles, space transportation vehicles, spacecraft and propulsion systems for both launch vehicle and in-space applications. The Contractor shall provide analytical and testing skills in the fields of computational fluid dynamics, coupled system dynamics, gas dynamics, thermochemical modeling, ablation modeling, thermal modeling, orbital heat rate calculations, heat transfer, active and passive thermal control, and conjugate fluid flow analysis. The Contractor shall provide design and analysis skills in the areas of physical and chemical processes to include distillation, absorption, catalytic reaction, filtration, phase separation, electrochemical processes and ion exchange used in life support flight systems and new technologies. The Contractor shall provide engineering and integral technician design and analysis support for physical and chemical laboratory for environmental control and life support system processes. The Contractor shall provide products such as thermal analyses of launch/ascent/descent environments, separation environments, plume induced environments, space environments, and vacuum test environments with associated thermal design options (e.g., thermal protection and insulations). The Contractor shall also provide analyses of thermal characteristics, flow dynamics, and/or acoustics of: liquid, solid, and gas engines; main propulsion systems; propellant and pressurization systems; tanks; ducts; valves; turbopump components; manifolds; reacting flows in injectors, chambers, and nozzles. The Contractor shall provide the products needed to support the development, acquisition, validation, quality control, and application of new and improved analytical tools and methods for thermal and fluids design and analysis required for design, analysis and test support (e.g., thermal balance and thermal vacuum). The Contractor shall provide support for and generate products associated with research and new technology development for thermal and fluids design, analysis and testing areas.

Three WBS examples are:

ES.16.4.43.xx.xx.xx.xx.xx.
ESSSA Contractor Thermal and Fluids Design, Analysis and Test skills supporting Propulsion Systems, Thermal Analysis for Program X for Project Y.

ES.16.5.22.xx.xx.xx.xx.xx
ESSSA Contractor Thermal and Fluids Design, Analysis and Test skills supporting Space Systems, Thermal and Mechanical Analysis for the International Space Station (ISS) program for the Environmental Control and Life Support Systems (ECLSS) project.

ES.16.7.34.xx.xx.xx.xx.xx
ESSSA Contractor Thermal and Fluids Design, Analysis and Test skills supporting Spacecraft Vehicle Systems, Thermal Analysis and Control for Program X for Project Y

3.17 Systems Management

The Contractor shall provide engineering and science skills to support the technical management of programs and projects from formulation through execution. Products include, but are not limited to, the documentation and other materials generated during support of technical implementation and management, technical risk analysis review, technical problem identification, technical problem resolution review, and technology identification, development, and assessment. Support shall include technology assessment and planning, advanced concepts definition, preliminary design, systems analysis support, and analysis and innovative strategies to facilitate utilization of Center technical capabilities. Systems analysis support includes the establishment of technical mission objectives, mission planning, development of concept and configuration alternatives, system modeling and simulations, optimization and trade studies involving technical, cost, schedule, and their associated risks with safety, affordability, and reliability. These programs and projects may require use of various systems engineering tools such as Model-Based Systems Engineering (MBSE), Dynamic Object-Oriented Requirements System (DOORS), or Cradle.

The Contractor shall provide technical experts in the areas of technical management and systems management as needed to support evaluation of MSFC programs and projects. This shall include support to the management and integration of requirements and functionality for developing/upgrading systems management tools to support the management and systems engineering functions; definition and facilitation of systems management processes; systems management guidance to program/projects; and membership on technical evaluation teams to assess the program's/project's progress toward meeting established technical commitments.

Five WBS examples are:

ES.17.10.23.LQ.xx.xx.10.34.DI.
ESSSA Contractor Systems Management skills supporting the Discovery, New Frontiers and Lunar Quest Programs for the Science Mission Directorate.

ES.17.10.34.EC.0.0.10.34.IS.
ESSSA Contractor Systems Management skills supporting systems on-orbit replaceable units (ORUs) of the Environmental Control and Life Support System (ECLSS) for the ISS program.

ES.17.xx.xx.xx.xx
ESSSA Contractor Systems Management skills supporting special studies in technology capability development.

ES.17.xx.xx.xx.xx
ESSSA Contractor Systems Management skills supporting the Technology Demonstration Missions (TDM) Program.

ES.17.xx.xx.xx.xx
ESSSA Contractor Systems Management skills supporting the Centennial Challenges Program.

3.18 Hardware and Hardware/Software Integration and Test

The Contractor shall provide hardware and hardware/software integration engineering skills to support the design, development, test, and evaluation of hardware and the associated configuration control, interface identification and interface management of integrated hardware and software data packages; simulation systems software, Change Request (CR) and Program/Project Interface Revision Notice (PIRN) review and coordination; hardware and software pedigree data package in support of integrated rack verification submittals and Certification of Flight Readiness (CoFR); manifesting; integrated analysis; sustaining engineering; on-orbit operations support, troubleshooting, and anomaly resolution for existing hardware, such as, International Space Station (ISS) racks, payloads, On-orbit Replaceable Units (ORUs); the modification/upgrade of existing hardware; or the development of new hardware such as racks, payloads, or modules for the ISS or equivalent space platform.

The Contractor shall provide hardware engineering and science skills to support the development of real-time software, hardware/software integration, real-time modeling and simulation definition, design, development, integration, test, certification, configuration control, operation and evaluation of real-time hardware-in-the-loop facilities such as the Software Integration Laboratory (SIL) or Systems Integration Test Facility (SITF). The Contractor shall provide the skills to support all software life-cycle development phases for Capability Maturity Model Integration (CMMI) maturity level 2 ground test software. The Contractor shall provide products such as: lab automation tools and displays, real-time vehicle and subsystem models; cable interconnect diagrams; cable harness drawings; grounding diagrams/analysis; avionics emulators and associated breakout boxes for both data and power; integrated engineering analysis for voltage drop and grounding systems (anchoring of model to flight data); hardware integration analysis; design integration; analytical tool development; and simulation and modeling. The Contractor shall be proficient in tools/languages such as: DOORS, VxWorks 653, MATLAB, UML/SysML, C/C++ and LabView.

One WBS example is:

ES.18.10.34.EC.0.0.34.IS
ESSSA Contractor Hardware and Hardware/Software Integration and Test skills supporting the On-orbit Replaceable Units (ORUs) for the Environmental Control and Life Support System (ECLSS) for the ISS Program.

Pages 89 through 92 redacted for the following reasons:
- -
(b)(4), (b)(4)

DATA PROCUREMENT DOCUMENT NO. **1390** ISSUE **Basic**

NNM12AA41C
CONTRACT/RFP

EXHIBIT NUMBER

J-2
ATTACHMENT NUMBER

Engineering and Science Services and Skills Augmentation (ESSSA)
PROJECT/SYSTEM

DATA PROCUREMENT DOCUMENT

TBD
CONTRACTOR

March 27, 2012
DATE

National Aeronautics and
Space Administration

MSFC - Form 3461 (Rev September 1989)

National Aeronautics and Space Administration **DOCUMENT CHANGE LOG**					DATA PROCUREMENT DOCUMENT NO. ISSUE **1390** **Basic**	
INCORPORATED REVISIONS OUTSTANDING REVISIONS					AS OF: 03-27-12	SUPERSEDING: PAGE:
AUTHORITY	PORTION AFFECTED - PAGE NO./NO.				REMARKS	
(DPD Revision)	INTRO	SGR	DRL	DRD		

MSFC - Form 3461-1 (Rev. September 2007)

1.0 INTRODUCTION

1.1 Scope: Subject to the Rights in Data clause, this Data Procurement Document (DPD) sets forth the data requirements in each Data Requirements Description (DRD) and shall govern that data required by the DPD for the contract. The Contractor shall furnish data defined by the DRDs listed on the Data Requirements List (DRL) by category of data, attached hereto, and made a part of this DPD. Such data shall be prepared, maintained, and delivered to NASA in accordance with the requirements set forth within this DPD. In cases where data requirements are covered by a Federal Acquisition Regulation (FAR) or NASA FAR Supplement (NFS) clause, that clause shall take precedence over the DPD, consistent with clause FAR 52.215-8.

1.2 DPD Description: This DPD consists of a Document Change Log, an Introduction, a Statement of General Requirements, DPD maintenance procedures, a DRL, and the DRDs.

1.2.1 General Requirements: The general requirements, as specified in paragraph 2.0 of this DPD, prescribe those requirements applicable to the preparation, maintenance, and delivery of data that are better defined in aggregate than in the individual DRDs.

1.2.2 Data Requirements List (DRL): Throughout the performance of the contract, the DRL provides a listing by data category of the data requirements of the DPD.

1.2.3 Data Requirements Descriptions (DRDs)

1.2.3.1 Each data requirement listed on the DRL is given complete definition by a DRD. The DRD prescribes content, format, maintenance instructions, and submittal requirements.

1.2.3.2 For the purpose of classification and control, DRDs of this DPD are grouped into the following broad functional data categories:

CATEGORY SYMBOL	DESCRIPTION
CD	Contractual Data
EE	Environmental
LS	Logistics/Support
MA	Management
SA	Safety

1.2.3.3 The symbols representing these data categories form part of the prefix of the DRD identification number. The first numerical characters reflect the DPD number.

1.2.3.4 To facilitate the usage and maintenance of the DPD, the DRDs have been sectionalized in accordance with the above data categories.

1.2.3.5 The DRDs are filed by data category and are in alpha-numeric sequence as listed on the DRL page (or pages) that precedes the DRDs.

1.2.4 Document Change Log (DCL): The Document Change Log chronologically records all revision actions that pertain to the DPD.

1.2.5 DPD Maintenance Procedures: Maintenance procedures define the detailed methods to be employed in maintaining the DPD. Detailed maintenance procedures are specified in paragraph 3.0 of this DPD.

1.3 Data Types for Contractual Efforts: The types of data and their contractually applicable requirements for approval and delivery are:

TYPE	DESCRIPTION
1*	All issues and interim changes to those issues require written approval from the requiring organization before formal release for use or implementation.

2* NASA reserves a time-limited right to disapprove in writing any issues and interim changes to those issues. The Contractor shall submit the required data to NASA for review not less than 45 calendar days** prior to its release for use. The Contractor shall clearly identify the release target date in the "submitted for review" transmittal***. If the data is unacceptable, NASA will notify the Contractor within 45 calendar days** from the date of submission, regardless of the intended release date***. The Contractor shall resubmit the information for reevaluation if disapproved. The submittal is considered approved if the Contractor does not receive disapproval or an extension request from NASA within 45 calendar days**.

3 These data shall be delivered by the Contractor as required by the contract and do not require NASA approval. However, to be a satisfactory delivery, the data shall satisfy all applicable contractual requirements and be submitted on time.

4 These data are produced or used during performance of the contract and are retained by the Contractor. They shall be delivered only when NASA requests in writing and shall be delivered in accordance with the instructions in the request. The Contractor shall maintain a list of these data and shall furnish copies of the list to NASA when requested to do so.

5 These data are incidental to contract performance and are retained by the Contractor in those cases where contracting parties have agreed that formal delivery is not required. However, the Contracting Officer or the Contracting Officer's Technical Representative (COTR) shall have access to and can inspect this data at its location in the Contractor's or Subcontractor's facilities, or in an electronic database accessible to the Government.

* Note: Type 1 and Type 2 data may be placed under NASA configuration management control when designated by NASA. CM control requires the Contractor to submit Type 1 and Type 2 data updates through Engineering Change Proposals (ECPs).

** Note: This time limit may be tailored for individual DRDs to meet the requirements of the procuring activity.

*** Note: If the Contractor does not identify a release target date or if the intended release date is shorter than 45 calendar days from the date of submission, the 45 calendar days review cycle stands (or the tailored Type 2 time limitation for the specific procurement).

2.0 STATEMENT OF GENERAL REQUIREMENTS

2.1 Applicable/Reference Documents: Documents included as applicable documents in this DPD are the issue specified in the Performance Work Statement (PWS), and form a part of the DPD to the extent specified herein. Applicable documents listed in Item 15.2 of a DRD are applicable only to the preparation of the deliverable documentation described by that DRD.

References to documents other than applicable documents in the data requirements of this DPD may sometimes be utilized, and shall be indicated in 13. Remarks of the DRD. These do not constitute a contractual obligation on the Contractor. They are to be used only as a possible example or to provide related information to assist the Contractor in developing a response to that particular data requirement.

2.2 Subcontractor/Contractor Data Requirements

2.2.1 The Contractor shall specify to Subcontractors and vendors, if any, the availability source of all data required for the satisfactory accomplishment of their contracts. The Contractor shall validate these requirements for documents when appropriate; where the requirement concerns other Contractor data. The Contractor shall provide the Subcontractor or vendor with the necessary documents. All such requests shall be accomplished under the auspices of the Contractor.

2.2.2 Reference to Subcontractor data in the Contractor's responses is permissible, providing the references are adequate and includes such identification elements as title, number, revision, etc., and a copy of the referenced data is supplied with the response document at time of delivery to NASA.

2.3 Data Distribution, Format, Data Restriction Marking, and Transmittal

2.3.1 Distribution: Distribution of required documentation shall be in quantities determined by the Contracting Officer. Recipient names and email (if applicable) addresses shall be noted on a separate distribution list to be furnished by the Contracting Officer. The Contracting Officer's letter may include other information pertinent to delivery of data, as required.

2.3.2 Format

2.3.2.1 Electronic Format: Electronic submission of data deliverables is required. Electronic deliverables shall be printable. Data deliverables shall be delivered to NASA in the format specified below unless a specific format is required by a DRD. Data submittals shall consist of a single Adobe Acrobat PDF file and the native format electronic file(s). The preferred native formats include, but are not limited to, Microsoft Word, Excel, PowerPoint, Pro-Engineering CAD files, or files generated using Model-Based Systems Engineering (MBSE) processes or software as appropriate. Where a single native format file is not possible, multiple files may be integrated into a single ZIP file for submission. The organization of the contents of the integrated ZIP file shall be made readily apparent to the reader, and each file within the integrated product shall be clearly identifiable and traceable within the organization of the integrated product. If files are fragmented, file names shall be labeled logically and contiguously, and the files shall be easily reassembled or merged (e.g. 1 filename, 2 filename, 2a filename, etc.). The software versions shall be confirmed prior to submittals.

2.3.2.2 Hardcopy Format: In addition to the electronic submittal, one hardcopy package of specific data deliverables shall be delivered to the NASA Contracting Officer for the Government contract file. The hardcopy package shall consist of the Contractor's Transmittal Memo and one copy of the data deliverable.

2.3.3 Data Restriction Marking

2.3.3.1 Data Restriction Determination and Marking Requirements: The Contractor shall determine the data restriction that applies to each data deliverable and mark the data restriction on the data coversheet, or indicate the data restriction in the data transmittal package if the data format precludes identification of data restriction directly in the data. The Contractor shall make a determination for each individual data deliverable item, and shall not apply a default or blanket data restriction marking to all data deliverables (e.g., "data may be export restricted"). If NASA does not agree with the Contractor applied data restriction, the NASA Contracting Officer shall return the data to the Contractor, cancel the markings, or ignore the markings consistent with the procedures set forth in the "data rights" clause(s) contained in the contract.

2.3.3.2 Data Restriction Categories and Marking Statements: The Contractor shall consider the following data restriction categories, as a minimum, and utilize specified marking statements.

If data delivered under this contract is subject to the International Traffic in Arms Regulations (ITAR), the data shall contain an "ITAR Notice" as follows:

International Traffic in Arms Regulations (ITAR) Notice

This document contains information which falls under the purview of the U.S. Munitions List (USML), as defined in the International Traffic in Arms Regulations (ITAR), 22 CFR 120-130, and is export controlled. It shall not be transferred to foreign nationals, in the U.S. or abroad, without specific approval of a knowledgeable NASA export control official, and/or unless an export license/license exemption is obtained/available from the United States Department of State. Violations of these regulations are punishable by fine, imprisonment, or both.

If data delivered under this contract is subject to the Export Administration Regulations (EAR), the data shall contain the "EAR Notice" as follows:

Export Administration Regulations (EAR) Notice

This document contains information within the purview of the Export Administration Regulations (EAR), 15 CFR 730-774, and is export controlled. It may not be transferred to foreign nationals in the U.S. or abroad without specific approval of a knowledgeable NASA export control official, and/or unless an export license/license exception is obtained/available from the Bureau of Industry and Security, United States Department of Commerce. Violations of these regulations are punishable by fine, imprisonment, or both.

If the contract contains FAR 52.227-14 *Alternate II*, the "Limited Rights Notice" may be applicable to data (other than computer software) delivered under this contract.

If the contract contains FAR 52.227-14 *Alternate III*, the "Restricted Rights Notice" may be applicable to computer software delivered under this contract.

If the contract contains FAR 52.227-20, the "SBIR Rights Notice" may be applicable to SBIR data delivered under this contract.

If the contract contains NFS 1852.237-73, a sensitive information legend may be applicable to information delivered under this contract

In accordance with the applicable data clause (e.g., FAR 52.227-14(c) or FAR 52.227-20(c)), the Contractor may be able to assert a copyright claim in data delivered under this contract. When claim to copyright is made, the Contractor shall affix the applicable copyright notices of 17 U.S.C. 401 or 402 and acknowledgment of Government sponsorship (including contract number) to the data when such data are delivered to the Government.

2.3.4 Transmittal

2.3.4.1 Data shall be transmitted to NASA by entry into Integrated Engineering Capabilty (IEC), email, CD or DVD, hardcopy, or other mechanism agreed to by the Contracting Officer, COTR, and Project representatives who are responsible to receive, index, and store the data deliverables.

2.3.4.2 If email is used to transmit data deliverables, the email size shall be 10 Megabytes or less to ensure receipt by the NASA email servers. Encrypted email format shall be used to transmit data which has been judged sensitive by the Contractor (e.g., export controlled, sensitive but unclassified (SBU), limited rights data, SBIR, restricted computer software, copyrighted, etc.).

2.3.4.3 Data Transmittal Package: Each data transmittal package shall include:

a. Transmittal memorandum that specifies the meta-data below for each data transmittal:
    1. Contract number.
    2. Data Requirements Description (DRD) number.
    3. DRD data type (specified in Item 3 on the DRD).
    4. Submission date or milestone being satisfied.
    5. Document number and revision.
    6. Document title.
    7. File names of all files being delivered; file naming convention shall clearly identify the document being delivered.
    8. Distribution (as defined by the Contracting Officer's letter).
    9. Requested response date.
    10. Contractor assigned data restriction (export controlled, sensitive but unclassified (SBU), limited rights data, SBIR, restricted computer software, copyrighted, etc.) if not marked on data.

11. NASA Records Retention Schedule (NRRS) number, if applicable (See NPR 1441.1, *NASA Records Retention Schedules*).

b. Printable electronic files or hardcopy data.

2.3.5 Electronic data deliverables should be transmitted directly to the MSFC Repository through the Digital Asset Manager web interface. Instructions for electronic data submittals can be found at http://avmcc.msfc.nasa.gov/repository/index.php. Document submitters must register for a Documentum user account through the NASA Account Management System (NAMS).

2.4 Printing: All printing, duplicating, or binding shall be in accordance with NFS 1852.208-81, Restrictions on Printing and Duplicating. Printing of formal reports and Type 1 and 2 data in book format shall be in accordance with the following general specifications:

a. Method of reproduction – offset/xerography.
b. Finished size – 8 1/2" X 11".
c. Paper – 20-pound opaque bond.
d. Cover – Litho cover stock.
e. Pages shall be printed on both sides; blank pages shall be avoided when possible.
f. Oversize pages shall be avoided when possible, but if necessary shall be folded to 8 1/2" X 11".
g. Binding shall be the most economical method commensurate with the size of the report and its intended use.

2.5 Contractor's Internal Documents: The Contractor's internal documents shall be used to meet the data requirements of this DPD unless a specific format is required by the applicable DRD.

2.6 Document Identification: Type 1 and 2 documents published by the Contractor and submitted in response to the data requirements of this DPD shall be identified within an organized identification numbering system prescribed to NASA by the Contractor and, if applicable, as approved by NASA. For all data types, the document number, change legend, date, and title constitute the minimum identification of the specific document and shall appear on the cover and title page. The contract number shall also appear on the cover and title page as separate markings. The originator and organization shall be included on the title page. The document number, change legend, and date shall appear on each page of the document. In the front portion of each document, identify the DPD number and applicable DRD number(s) required for document preparation. Successive issues or revisions of documents shall be identified in the same manner as the basic issue and shall have appropriate change identification. Drawings and ECP's are excluded from the marking provisions of this paragraph. All Type 1 documentation, excluding configuration management requirements, shall be marked "PRELIMINARY PENDING NASA APPROVAL," and once approved shall be reissued with "APPROVED BY NASA" and the date and approval authority annotated on the cover.

2.7 Reference to Other Documents and Data Deliverables in Data Submittals: All referenced documents shall be made readily available to the cognizant NASA organization upon request. The Contractor should make sure that the references are available to NASA in a manner which does not incur delays in the use of the response document. Reference may be made, within one data submittal, to other data submittals delivered in response to this DPD in those cases where the data required by one DRD may have been delivered by the Contractor in response to another DRD. The reference to previously-submitted data shall include the applicable DRD number, data submittal version date, and location within the referenced document.

2.8 Maintenance of Type 1 Document Submittals

2.8.1 Revisions of Type 1 documentation may be accomplished either by individual page revision or by a complete reissue of the document identified in accordance with requirements of 2.6 above, with the exception of drawings (which shall be revised in accordance with contract configuration management requirements).

2.8.2 Individual page revisions shall be made as deemed necessary by the Contractor or as directed by the Contracting Officer.

2.8.3 A Type 1 document shall be completely reissued when, in the opinion of the Contractor and/or NASA, the document has been revised to the extent that it is unusable in its present state, or when directed by the Contracting Officer. When complete reissues are made, the entire contents of the document shall be brought up to date and shall incorporate revised pages. All revisions shall be recorded. A revision log shall identify complete reissues except for periodic reports and documents which are complete within themselves as final.

2.8.4 Changes of a minor nature to correct obvious typing errors, misspelled words, etc., shall only be made when a technical change is made, unless the accuracy of the document is affected.

2.8.5 All revised pages shall be identified by a revision symbol and a new date. Each document shall contain a log of revised pages that identify the revision status of each page with the revision symbol. This list shall follow the table of contents in each document. The line or lines revised on a given page shall be designated by the use of a vertical line(s) in the margin of the page, and the change authority shall be indicated adjacent to the change.

2.8.6 Contractor Type 1 documents shall not be submitted containing pen and ink markups which correct, add to, or change the text, unless schedule problems exist and approval is obtained in writing from the Contracting Officer. Such markups, however, shall not exceed 20 percent of the page content and shall be acceptable provided that the reproduced copies are legible. In addition, hand-drawn schematics, block diagrams, data curves, and similar charts may be used in original reports in lieu of formally prepared art work, as long as legibility of copies is not impaired. Acceptability shall be determined by the Contracting Officer.

3.0 DPD MAINTENANCE PROCEDURES

3.1 NASA-Initiated Change: New and/or revised data requirements shall be incorporated by contract modification to which the new or revised portion of the DPD shall be appended. The Contractor shall notify the Contracting Officer in the event a deliverable data requirement is imposed and is not covered by a DRD, or when a DRD is changed by a contract modification and for which no revision to DPD is appended. In such cases, the Contractor shall submit the requested changes to NASA for approval. See paragraph 3.3.1 for change procedures.

3.2 Contractor-Initiated Change: Contractor-proposed data requirements or proposed changes to existing requirements shall be submitted to NASA for approval.

3.3 DPD Change Procedures

3.3.1 Changes to a contractual issue of this DPD shall be identified by NASA on the Document Change Log.

3.3.2 The date of the DPD shall be entered under the “as of” block of the Document Change Log. The date that was in the “as of” block shall be entered in the “Superseding” block.

3.3.3 The Document Change Log entitled “Incorporated Revisions” shall be changed to indicate the modification number, portions affected, and remarks. All changes to the DPD/DRDs shall be identified in the “Remarks” column.

3.4 DPD Reissues

3.4.1 When conditions warrant, the DPD shall be reissued by NASA for each contract modification that affects the DPD and shall supersede the existing DPD in its entirety. Reissues shall be issued by contractual direction.

3.4.2 All revision dates shall remain in the Date Revised block on all DRDs. The issue symbol, which shall commence with "A" and progress through "Z," shall be entered in the DPD identification block of each DRD page of the DPD.

Engineering and Science Services and Skills Augmentation

Data Requirements List

DRD	DATA TYPE	TITLE	OPR
CD – Contractual Data			
1390CD-001	3	Option Decision Package	ED01
1390CD-002	3	On-Site Employee Location Listing	PS12
1390CD-003	3	Technology Reports	ED10
EE – Environmental			
1390EE-001	3	Environmental and Energy Consuming Product Compliance Reports	AS10
LS – Logistics Support			
1390LS-001	2	Government Property Management Plan	AS41
MA – Management			
1390MA-001	1	Management Plan	ED01
1390MA-002	1	Task Order Plan (TOP)	ED01
1390MA-003	1	Organizational Conflict of Interest (OCI) Plan	LS01
1390MA-004	2	Work Breakdown Structure (WBS) & WBS Dictionary	CS40
1390MA-005	3	Task Order Activity Reports	ED02
1390MA-006	3	Contractor Self-Assessment Report	ED01
1390MA-007	3	Financial Management Report (533M)	RS01
1390MA-008	3	Funding Projection Report	ED02
1390MA-009	3	Weekly Contract Status Briefing	ED01
SA – Safety			
1390SA-001	2	Safety, Health, and Environmental (SHE) Plan	AS10/QD12
1390SA-002	2	Contractor Personnel Certification Plan	QD12/QD21/ED01
1390SA-003	3	Mishap and Safety Statistics Reports	QD12

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.**: 1390 **ISSUE**: Basic
2. **DRD NO.**: **1390CD-001**
3. **DATA TYPE**: 3
4. **DATE REVISED**:
5. **PAGE**: 1/1

6. **TITLE**: Option Decision Package

7. **DESCRIPTION/USE**: To provide Option Decision Package to NASA for all ESSSA services.

8. **OPR**: ED01 9. **DM**: ED01

10. **DISTRIBUTION**: Per Contracting Officer's letter

11. **INITIAL SUBMISSION**: Option 1 Decision Package eleven (11) months prior to the effective date of Option 1.

12. **SUBMISSION FREQUENCY**: Option 2 Decision Packages due eleven (11) months prior to the effective date of Option 2 (if Option 1 is exercised); Option 3 Decision Package due eleven (11) months prior to the effective date of Option 3 (if Option 2 is exercised).

13. **REMARKS**: Any request for additional information will be made in writing by the Contracting Officer at least 14 days before the Option Decision Package is due.

14. **INTERRELATIONSHIP**: Reference is made to Clause F.4, *Special Conditions Applicable to Exercise of Options 1, 2, and 3*. PWS paragraph 2.6.2

15. **DATA PREPARATION INFORMATION**:

15.1 **SCOPE**: The Option Decision Package will provide information relative to decision considerations by the Government in deciding to exercise options to extend the term of the contract. Specifically, the Option Decision Package shall provide a self-assessment of the contractor's performance for the areas to be evaluated by the Government for submission into the Contractor Performance Assessment Reporting System (CPARS).

15.2 **APPLICABLE DOCUMENTS**: None

15.3 **CONTENTS**: The Option Decision Package shall address the areas to be evaluated by the Government in its assessment of the Contractor's performance for submission into CPARS, and any additional information requested by the Contracting Officer. Areas of evaluation include the following: quality of product or service, schedule, cost control, business relations, management of key personnel, and other areas (i.e., safety, property).

15.4 **FORMAT**: Contractor format is acceptable.

15.5 **MAINTENANCE**: None required

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.**: 1390 **ISSUE**: Basic
2. **DRD NO.**: **1390CD-002**
3. **DATA TYPE**: 3
4. **DATE REVISED**:
5. **PAGE**: 1/1

6. **TITLE**: On-Site Employee Location Listing

7. **DESCRIPTION/USE**: To assist Marshall Space Flight Center (MSFC) or Michoud Assembly Facility (MAF) in conducting Contractor floor checks.

8. **OPR**: PS12 9. **DM**: ED01

10. **DISTRIBUTION**: Per Contracting Officer's letter

11. **INITIAL SUBMISSION**: Fourteen (14) calendar days after commencement of contract.

12. **SUBMISSION FREQUENCY**: Update quarterly. If deemed necessary by the Contracting Officer, the Contractor shall submit the list at times other than stated.

13. **REMARKS**: Reference is made to Federal Acquisition Regulation (FAR) Clause, FAR 52.215-2, *Audit and Records--Negotiations* (June 1999).

14. **INTERRELATIONSHIP**: PWS paragraph 2.2.2

15. **DATA PREPARATION INFORMATION**:

15.1 **SCOPE**: The On-Site Employee Location Listing shall provide MSFC or MAF with a list of all on-site Contractor employees working under this contract and their designated locations.

15.2 **APPLICABLE DOCUMENTS**: None

15.3 **CONTENTS**: The On-Site Employee Location Listing shall include the following information for each employee: employee's name, position, location (building/room number), shift assignment, Contractor supervisor's name, and supervisor's location (building/room number).

15.4 **FORMAT**: Contractor format is acceptable.

15.5 **MAINTENANCE**: None required

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.**: 1390 **ISSUE**: Basic
2. **DRD NO.**: **1390CD-003**
3. **DATA TYPE**: 3
4. **DATE REVISED**:
5. **PAGE**: 1/3

6. **TITLE**: Technology Reports

7. **DESCRIPTION/USE**: Provides NASA with technical information concerning any invention, discovery, improvement, or innovation made by a Contractor in the performance of work under this contract for the purpose of disseminating this information to obtain increased use of the technology. Also, to provide NASA with data to review for possible patentable items.

8. **OPR**: ED10 9. **DM**: ED01

10. **DISTRIBUTION**: Per Contracting Officer's letter

11. **INITIAL SUBMISSION**:
Technology Reporting Plan: Upon Contracting Officer's request.
Disclosure of Invention and New Technology (NASA Form 1679): Within two (2) months of identification of reportable item.
Interim NASA New Technology Summary Report (NTSR) Form: Twelve (12) months from the date of the contract.
Final NASA New Technology Summary Report (NTSR) Form: Immediately or within three (3) months after completion of contracted work. Final Payment is contingent upon submission of the Final NTSR.

12. **SUBMISSION FREQUENCY**:
Technology Reporting Plan: Upon Contracting Officer's request.
Disclosure of Invention and New Technology (NASA Form 1679): For each reportable item.
Interim NASA New Technology Summary Report (NTSR) Form: Every twelve (12) months.
Final NASA New Technology Summary Report (NTSR) Form: Immediately or within three (3) months after completion of contracted work. Final Payment is contingent upon submission of the Final NTSR.

13. **REMARKS**: Copies of NASA Form 1679 and the NASA New Technology Summary Report (NTSR) Form (Interim and Final) may be obtained and/or filled out at: https://ntr.ndc.nasa.gov/. These forms may also be obtained from the New Technology Representative (mailto: Carolyn.E.McMillan@nasa.gov).

14. **INTERRELATIONSHIP**: PWS paragraph 2.1.10

15. **DATA PREPARATION INFORMATION**:

15.1 **SCOPE**: The Technology Reports include technical detail as is necessary to identify and fully describe a "Reportable Item". Per NFS 1852.227-70, "Reportable Item" means any invention, discovery, improvement, or innovation of the Contractor, whether or not the same is or may be patentable or otherwise protectable under Title 35 of the United States Code, conceived or first actually reduced to practice in the performance of any work under this contract or in the performance of any work that is reimbursable under any clause in this contract providing for reimbursement of costs incurred prior to the effective date of this contract.

15.2 **APPLICABLE DOCUMENTS**:
NFS 1852.227-70 New Technology Clause

15. **DATA PREPARATION INFORMATION (CONTINUED)**:

15.3 **CONTENTS**: The Technology Reports consist of:

a. Disclosure of Invention and New Technology (Including Software): In accordance with NFS 1852.227-70 (e)(2), the disclosure to the agency shall be in the form of a written report and shall identify the contract under which the reportable item was made and the inventor(s) or innovator(s). It shall be sufficiently complete in technical detail to convey a clear understanding, to the extent known at the time of the disclosure, of the nature, purpose, operation, and physical, chemical, biological, or electrical characteristics of the reportable item. The disclosure shall also identify any publication in its draft and published forms, or public use of any subject invention and whether a manuscript describing such invention has been submitted for publication and, if so, whether it has been accepted for publication at the time of disclosure. In addition, after disclosure to the Agency, the Contractor shall promptly notify the Agency of the acceptance of any manuscript describing a subject invention for publication or of any on sale or public use planned by the Contractor for such invention. This reporting requirement may be met by completing NASA Form 1679 (latest revision) in hardcopy or online at: https://ntr.ndc.nasa.gov/. Use of this form or the online system is preferred; however, if the form is not used, the following information should be provided in order to meet the reporting requirement:

1. Descriptive title.
2. Innovator(s) name(s), title(s), phone number(s), and home address(es).
3. Employer when innovation made (name and division).
4. Address (place of performance).
5. Employer status (e.g., Government, college or university, non-profit organization, small business firm, large entity).
6. Origin (e.g., NASA grant number, NASA prime contract number, Subcontractor, joint effort, multiple Contractor contribution, other).
7. NASA Contracting Officer's Technical Representative (COTR).
8. Contractor/Grantee New Technology Representative.
9. Brief abstract providing a general description of the innovation:
   (a) Description of the problem or objective that motivated the innovation's development.
   (b) Technically complete and easily understandable description of innovation developed to solve or meet the objective.
   (c) Unique or novel features of the innovation and the results or benefits of its application.
   (d) Speculation regarding potential commercial applications and points of contact (including names of companies producing or using similar products).
10. Additional documentation.
11. Degree of technological significance (e.g., modification of existing technology, substantial advancement in the art, major breakthrough).
12. State of development (e.g., concept only, design, prototype, modification, production model, used in current work).
13. Patent status.
14. Dates or approximate time period during which this innovation was developed.
15. Previous or contemplated publication or public disclosure including dates.
16. Answers to the following questions (for software only):
   (a) Using outsiders to beta-test code? If yes, done under beta-test agreement?
   (b) Modifications to this software continue to be performed by Civil Servant and/or contractual agreement?
   (c) Previously copyrighted (if so, by whom?)?
   (d) Were prior versions distributed (if yes, supply contract information (NASA or other contract))?
   (e) Contains or is based on code owned by a Non-Federal entity (if yes, has a license for use been obtained?)?
   (f) Has the latest version been distributed without restrictions as to use or disclosure for more than one year (if yes, supply date of disclosure)?
17. Name(s) and signature(s) of innovator(s).

15. **DATA PREPARATION INFORMATION (CONTINUED)**:

b. Interim NASA New Technology Summary Report (NTSR): This report shall consist of a listing of reportable items for the reporting period or certification that there are none. This report shall also contain a list of subcontracts containing a patent rights clause or certification that there were no such subcontracts. Completion of the Interim NTSR shall satisfy this reporting requirement. Use of the form utilizing the online system at https://ntr.ndc.nasa.gov/ is preferred; however an alternate format is acceptable provided all required information is provided.

c. Final NASA New Technology Summary Report (NTSR): This report shall consist of a comprehensive list of all reportable items for the contract duration or certification that there are none. This report shall also contain a list of subcontracts containing a patent rights clause or certification that there were no such subcontracts. Completion of the Final NTSR shall satisfy this reporting requirement. Use of the form utilizing the online system at https://ntr.ndc.nasa.gov/ is preferred; however an alternate format is acceptable provided all required information is provided.

d. Subcontracts: The Contractor shall provide copies of subcontracts containing a patent rights clause upon Contracting Officer's request.

15.4 **FORMAT**: The Disclosure of Invention and New Technology (Including Software) report may use NASA Form 1679 (latest version) or the online system at: https://ntr.ndc.nasa.gov/, or provide sufficient information to meet the reporting requirement.

The interim and final NASA New Technology Summary Reports may use the NTSR Form (Interim or Final whichever is applicable) utilizing the online system at: https://ntr.ndc.nasa.gov/, or provide sufficient information to meet the reporting requirement.

15.5 **MAINTENANCE**: None required

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.**: 1390 **ISSUE**: Basic 2. **DRD NO.**: **1390EE-001**
3. **DATA TYPE**: 3 4. **DATE REVISED**:
5. **PAGE**: 1/3

6. **TITLE**: Environmental and Energy Consuming Product Compliance Reports

7. **DESCRIPTION/USE**: To provide the Government data related to contractor compliance with green purchasing, waste reduction, energy efficient product procurement, and ozone depleting substances environmental requirements.

8. **OPR**: AS10 9. **DM**: ED01

10. **DISTRIBUTION**: Per Contracting Officer's letter

11. **INITIAL SUBMISSION**:
Annual Green Purchasing Report – November 1 for the previous fiscal year or end of contract.
Waste Reduction Activity Report - November 1 for the previous fiscal year or end of contract.
Annual Energy Efficiency Product Procurement Report - January 15 of each year or end of contract.
Ozone Depleting Substances (ODS) Notifications - January 15 of each year or end of contract.
Equipment Notifications – prior to purchasing.

12. **SUBMISSION FREQUENCY**: Annually, by dates specified in Section 15.3, except for equipment notifications that shall be submitted prior to purchasing.

13. **REMARKS**: For 15.3a and 15.3c, where the Contractor does not purchase any designated product during the fiscal year or duration of contract, the report shall be a statement to that effect. For 15.3d, if the Contractor does not purchase, own, operate, maintain, or repair Ozone Depleting Substances (ODS) equipment on-site, the report shall be a statement to that effect. Fiscal year is the Federal Government fiscal year and is defined as October 1 through September 30.

14. **INTERRELATIONSHIP**: DRD 1390SA-001, *Safety, Health, and Environmental (SHE) Plan*. PWS paragraph 2.1.8

15. **DATA PREPARATION INFORMATION**:

15.1 **SCOPE**: The Environmental and Energy Consuming Product Compliance Report will include the contractor compliance data for Annual Green Purchasing Report, Waste Reduction Activity Report, Energy Efficiency Product Procurement Report, Ozone Depleting Substances (ODS) Notification, and Equipment Notifications.

15.2 **APPLICABLE DOCUMENTS**:
40 CFR 82.162 *Certification by owners of recovery and recycling equipment*

15.3 **CONTENTS**: The Environmental and Energy Consuming Product Compliance Report shall include:

a. Annual Green Purchasing Reports shall track and report each November 1 to Environmental Engineering and Occupational Health Office the following information regarding the purchase by the Contractor (including subcontracts) of all products on the U. S. Environmental Protection Agency (EPA) Comprehensive Procurement Guideline list and items on the United States Department of Agriculture (USDA) Farm Bill Biobased list:
   1. The total amount of each item purchased during the previous fiscal year in dollars.
   2. The total amount of each listed item purchased during the previous fiscal year that contained at least the minimum required percentage of recycled content or biobased content in dollars.
   3. The total amount of each listed item purchased during the previous fiscal year that contained some recycled content or biobased content but less than the minimum recommended percentages of recycled content or biobased content in dollars.

15. **DATA PREPARATION INFORMATION (CONTINUED)**:

4. The number of waivers and the name of the item each waiver was requested for submittal to the Environmental Engineering and Occupational Health Office during the previous fiscal year.
5. The total amount purchased for each waivered item during the previous fiscal year in dollars.
6. A narrative explanation of constraints for purchasing each item that did not meet green purchasing requirements during the previous fiscal year.

b. Waste Reduction Activity Report shall track and report each November 1 to Environmental Engineering and Occupational Health Office any new process improvements or programs undertaken by the Contractor (or subcontractors) that have contributed to waste reduction during the previous fiscal year. Waste reduction means preventing or decreasing the amount of waste being generated through waste prevention, recycling, or purchasing recycled and environmentally preferable products. This may be done through recycling***** or waste prevention******. *This may be accomplished through source reduction or by increasing reuse and recycling of items that would normally go to the landfill (trash).* The information will be included in each Center's annual report to NASA HQ on waste reduction activities. Limit responses to one page or less per item. The response shall include a description of the activity, the materials or wastes reduced, estimated volume or weight of reduction, and a contact name and phone number for a person knowledgeable about the reduction activity.

***** Recycling means the series of activities, including collection, separation, and processing by which products or other materials are recovered from the solid waste stream for use in the forms of raw materials in the manufacture of products other than fuel for producing heat or power by combustion.

****** Waste prevention means any change in the design, manufacturing, purchase, or use of materials or products (including packaging) to reduce their amount or toxicity before they are discarded. Waste prevention also refers to the reuse of products or materials.

c. Annual Energy Efficiency Product Procurement Report shall report to the MSFC Energy Manager, on January 15 of each year, information on purchases of energy consuming products made by the Contractor (including subcontracts) beginning upon contract start. This includes the purchase of premium efficiency motors and efficiency lighting covered by the Energy Policy Act of 2005. The report shall provide the following:

1. A list of all energy consuming products purchased during the previous fiscal year.
2. The total purchase cost of each item on the list.
3. A designation of which items were Energy Star or Federal Energy Management Program (FEMP)-sanctioned.
4. For each Energy Star or FEMP-sanctioned product purchased, provide:
   (a) The simple payback value as determined by the contractor's life cycle cost analysis.
   (b) The annual savings in dollars and BTUs due to the purchase of the item.
5. Metrics which show the effectiveness of the contractor's purchases:
   (a) Percentage of purchased products that are Energy Star and FEMP-sanctioned against the total number of energy consuming products purchased.
   (b) Total dollar value of the purchased products that are Energy Star and FEMP-sanctioned against the total dollar value of all energy consuming products purchased.

d. Ozone Depleting Substances (ODS) Notifications shall track and report each January 15 to Environmental Engineering and Occupational Health Office the following information for the previous fiscal year related to ODS equipment that the contractor purchases, owns, operates, maintains, or repairs on-site:

1. A list of the names of all EPA-Certified service technicians employed and their certification dates
2. A list of any ODS recovery/recycling equipment that will be used and copy of the 40 CFR 82.162 EPA registration.

e. Equipment Notifications shall report to Environmental Engineering and Occupational Health Office when equipment that may require air permitting (e.g. boilers, generators, grit or sand blasters, parts washers, tanks, non-digital photography equipment, vent hoods, wood working equipment, metal working equipment, vapor degreasers, x-ray developing, surface coating equipment, cleaning equipment, autoclaves, engines, fueling stations/equipment, propulsion engine and launch system testing equipment/ articles, etc.) is brought onto the Center.

DRD Continuation Sheet

TITLE: Environmental and Energy Consuming Product Compliance Reports

DRD NO.: **1390EE-001**

DATA TYPE: 3

15. **DATA PREPARATION INFORMATION (CONTINUED)**:

15.4 **FORMAT**: Contractor format is acceptable on all other reports **except** the Green Purchasing Reports shall be submitted on the following MSFC forms:

a. MSFC Form 4412, "Green Purchasing Request for Waiver".
b. MSFC Form 4510, "MSFC Construction Green Purchasing Reporting Form".
c. MSFC Form 4543, "MSFC General Green Purchasing Reporting Form".
d. MSFC Form 4544, "MSFC Office Green Purchasing Reporting Form" MSFC electronic forms can be found at the following location; https://repository.msfc.nasa.gov/forms/forms.html.

15.5 **MAINTENANCE**: None required

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.**: 1390 **ISSUE**: Basic 2. **DRD NO.**: **1390LS-001**
3. **DATA TYPE**: 2 4. **DATE REVISED**:
5. **PAGE**: 1/1

6. **TITLE**: Government Property Management Plan

7. **DESCRIPTION/USE**: To describe the method of controlling and managing Government property.

8. **OPR**: AS41 9. **DM**: ED01

10. **DISTRIBUTION**: Cognizant property administrator

11. **INITIAL SUBMISSION**: Thirty (30) calendar days after commencement of contract

12. **SUBMISSION FREQUENCY**: Revise as required

13. **REMARKS**: This document shall be the official contract requirements document for the control and identification of all Government property.

14. **INTERRELATIONSHIP**: PWS paragraph 2.1.5

15. **DATA PREPARATION INFORMATION**:

15.1 **SCOPE**: The Government Property Management Plan defines the Contractor's methods of care, accounting, and control of Government property.

15.2 **APPLICABLE DOCUMENTS**:

FAR	*Federal Acquisition Regulation, Part 45*
FAR	*Federal Acquisition Regulation, Part 52.245*
NFS 1852.245	*NASA/FAR Supplement and latest revisions thereto*
NFS 1852.245-80	*NASA FAR Supplement, Government Property Management Information (PIC 07-09)*
NPR 4100.1	*Supply Support and Material Management Policy*
NPR 4200.1	*Equipment Management*
NPR 4300.1	*NASA Personal Property Disposal Policy*
NPR 5100.4	*Federal Acquisition Regulation Supplement (NASA/FAR Supplement) [48 CFR 1800-1899] (REVALIDATED 9/16/2008)*

15.3 **CONTENTS**: The Government Property Management Plan shall satisfy the requirements of the documents listed in 15.2, and the contract. This plan shall consist of those procedures which constitute the Contractor's property management system and shall include the following categories:

a. Property management.
b. Acquisition.
c. Receiving.
d. Identification.
e. Records.
f. Movement.
g. Storage.
h. Physical inventories.
i. Reports.
j. Consumption.
k. Utilization.
l. Maintenance.
m. Subcontractorcontrol.
n. Disposition.
o. Contract close-out.

15.4 **FORMAT**: Contractor format is acceptable.

15.5 **MAINTENANCE**: Changes shall be incorporated by change page or complete reissue.

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.**: 1390 **ISSUE**: Basic
2. **DRD NO.**: **1390MA-001**
3. **DATA TYPE**: 1
4. **DATE REVISED**:
5. **PAGE**: 1/2

6. **TITLE**: Management Plan

7. **DESCRIPTION/USE**: To provide a description of the Contractor's overall management system and organization for accomplishing the requirements set forth in the contract.

8. **OPR**: ED01 9. **DM**: ED01

10. **DISTRIBUTION**: Per Contracting Officer's letter

11. **INITIAL SUBMISSION**: Not later than thirty (30) calendar days prior to commencement of contract.

12. **SUBMISSION FREQUENCY**: Update as required

13. **REMARKS**:

14. **INTERRELATIONSHIP**: Reference is made to clauses H.5, 1852.216-80 *Task Ordering Procedure*, H.6, *Supplemental Task Ordering Procedures*, H.7, *Task Order Cost Increase Notification Requirements*, I.14, *1852.204-76 Security Requirements for Unclassified Information Technology Resources*. PWS paragraphs 2.1.2 and 2.4.1

15. **DATA PREPARATION INFORMATION**:

15.1 **SCOPE**: The Management Plan will describe the Contractor's management and operational approach for providing the services delineated in the Performance Work Statement.

15.2 **APPLICABLE DOCUMENTS**:

NFS 1852.204-76 *Security Requirements for Unclassified Information Technology Resource*

15.3 **CONTENTS**: The contractor's Management Plan shall include:

a. Management approach for accomplishing the requirements set forth in the contract, i.e., negoitiating, managing and controlling Task Order Requests (TORs), Task Order Plans (TOPs), Task Orders (TOs) and TO sub-elements, Task Order Change Requests (TOCRs), Task Order Change Plans (TOCPs) once approved this becomes the modifiedTask Order), timely closure of TOs/TO sub-elements and management interfaces. The plan shall be in such detail as necessary to convey the Contractor's internal procedures.

b. Management concepts, plans, practices, organizational approach, and communication channels between the Contractor, subcontractors, teammates and the Government. This shall include descriptions, flow charts, authority channels (including level local autonomy), schedules, how the WBS maps to its organization and other documentation necessary to give a comprehensive plan.

c. Process of setting goals and establishing policies, practices, procedures, and organizational structure to support the MSFC Governance processes.

d. Approach to ensure technical excellence in products and personnel.

e. Approach to requirements compliance, continuous improvement and innovation.

f. Definition of management structure and lines of authority to support reporting requirements as defined in the DPD in a fashion that contributes to the timely notice and resolution of problems and concerns that arise in the performance of this contract.

g. How the Contractor will develop, implement, and maintain IT Security. This section shall describe the processes and procedures that will be followed to ensure the appropriate security of IT resources that are developed, processed, or used under this contract. This shall include the IT Security Management Plan in accordance with Clause I.14, NFS 1852.204-76 which includes an *IT Security Plan*.

h. How the Contractor will develop, implement, and maintain export control. This section shall describe the processes and procedures that will be followed to ensure compliance with the appropriate regulations.

DRD Continuation Sheet

TITLE: Management Plan **DRD NO.**: **1390MA-001**

DATA TYPE: 1 **PAGE**: 2/2

15. **DATA PREPARATION INFORMATION (CONTINUED)**:

15.4 **FORMAT**: Contractor format is acceptable.

15.5 **MAINTENANCE**: Changes shall be incorporated by change page or complete reissue.

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.**: 1390 **ISSUE**: Basic
2. **DRD NO.**: **1390MA-002**
3. **DATA TYPE**: 1
4. **DATE REVISED**:
5. **PAGE**: 1/2

6. **TITLE**: Task Order Plan (TOP)

7. **DESCRIPTION/USE**: To provide a plan that satisfies the requirements set forth in a Task Order Request and in the case of an approved Task Order, the changed requirements set forth in the Task Order Change Request resulting in a Task Order Change Plan (TOCP). Once approved by the Contracting Officer, the Task Order Plan becomes the Task Order and the TOCP becomes a TO modification. The requirements of this DRD also apply to the TOCP.

8. **OPR**: ED01 9. **DM**: ED01

10. **DISTRIBUTION:** Per Contracting Officer's letter

11. **INITIAL SUBMISSION**: Task Order Plan (TOP) submitted within five (5) calendar days of receipt of Task Order Request (TOR) or Task Order Change Request to an existing Task Order Plan from MSFC.

12. **SUBMISSION FREQUENCY**: Five (5) days after receipt of Task Order Request (TOR) or Task Order Change Request

13. **REMARKS**:

14. **INTERRELATIONSHIP**: Reference is made to Clauses H.5, *1852.216-80 Task Ordering Procedure* and H.6, *Supplemental Task Ordering Procedures*. PWS paragraph 2.4.2

15. **DATA PREPARATION INFORMATION**:

15.1 **SCOPE**: The Task Order Plan will contain the elements of documentation necessary to determine the Contractor's understanding of the requirements set forth in the Task Order Request or Task Order Change Request.

15.2 **APPLICABLE DOCUMENTS**:

MPD 1280.1 *Marshall Quality Management System Manual*

15.3 **CONTENTS**: The Task Order Plan (TOP) shall include:

a. Initial Date of TOR or TOCR
b. Contract Number.
c. Task Order and Sub-element Title.
d. Task Order Number and Sub-element Number.
e. Period of Performance (provided by MSFC).
f. Task Order Manager (Contractor).
g. Task Order Lead and Sublement Leads (Contractor) if not the same as f.
h. Task Order functional description of the work including objectives or results desired from the TO (provided by MSFC).
i. Technical Approach (including required input, data, special instructions, guidelines and assumptions).
j. Discussion of skills required. (Labor Skill mix).
k. Materials, supplies, tools, and equipment required and whether such items will be government provided, Contractor provided, or acquired by Contractor as part of the TO other direct costs (ODC). This includes any anticipated purchases that are over $150,000 (include estimated acquisition cost).
l. Milestones and Deliverables (including Subcontractor deliverables) (Top level milestones and deliverables provided by MSFC, lower level milestones and deliverables developed by the Contractor).
m. Delivery/Performance Schedule, including start and end dates.
n. Special considerations (recruiting, consulting, safety concerns, the need to negotiate labor rate exceedances, etc.) that may affect performance and risk associated with cost, schedule, and technical.

15. **DATA PREPARATION INFORMATION (CONTINUED)**:

- o. Performance Standards, and where appropriate, MPD 1280.1 standards.
- p. Task Order or Task Order Modification Release Date.
- q. Project WBS, Fund, Cost Center (provided by MSFC).
- r. Maximum negotiated cost, fee, and value allocated among fee periods.
- s. Performing NASA Dept/Project (provided by MSFC).
- t. Performing NASA Branch (provided by MSFC).
- u. NASA Performing Organization Task Order Initiator and sub-element initiators (provided by MSFC).
- v. NASA Performing Organization Resource Analyst (provided by MSFC).
- w. Cost Estimate, to include labor categories and labor hours for Prime and Subcontractors, and Other Direct Costs (including travel, training, material, and any other applicable costs except Subcontractor labor).
- x. Other resources required (equipment, facilities, etc.).
- y. Participating Team (participating teammates, partners and subcontractor), by Company name.
- z. Rolling history of past modifications, including summary of changes and date of modifications.
- aa. Risk Assessment and Risk Mitigation Plan.
- bb. Identification as an Emergency Task Order (if appropriate).
- cc. OCI Report (if needed as required by DRD 1390MA-003 paragraph 15.3j).

The Task Order Plan shall be accompanied by a separate detailed cost estimate spreadsheet providing the labor categories, labor hours, fully burdened labor rates, total labor cost, any non-fee bearing labor cost associated with Subject Matter Expert 4 (including labor hours and labor rate costs over the not-to-exceed fully burdened labor rate), applicable ODC, indirect rates applied to ODCs, total ODC cost, fee, and total task order value. For a Task Order Change Plan, the detailed cost estimate shall provide the previous TO detailed cost estimate, the detailed cost estimate for the change, and the total revised detailed cost estimate (summation of the previous and the change).

15.4 **FORMAT**: Contractor format is acceptable. The detailed cost estimate shall be provided in Excel format.

15.5 **MAINTENANCE**: Changes shall be incorporated by complete reissue with change bars utilized to denote the areas of change in the TO content.

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO**.: 1390 **ISSUE**: Basic
2. **DRD NO.**: **1390MA-003**
3. **DATA TYPE:** 1
4. **PAGE REVISED**:
5. **PAGE**: 1/2

6. **TITLE**: Organizational Conflict of Interest (OCI) Plan

7. **DESCRIPTION/USE**: To ensure OCIs are appropriately identified, resolved, and reported.

8. **OPR**: LS01 9. **DM**: ED01

10. **DISTRIBUTION**: Per Contracting Officer's letter

11. **INITIAL SUBMISSION**: Submit with proposal

12. **SUBMISSION FREQUENCY**: As needed

13. **REMARKS**: Having an acceptable OCI plan as defined by this DRD is required to be eligible for award.

14. **INTERRELATIONSHIP**: Reference is made to H.3, *Resolution of Organizational Conflict of Interest (OCI*) and H.4, *Disclosure of Organizational Conflict of Interest after Contract Award*. PWS paragraph 2.1.4

15. **DATA PREPARATION INFORMATION**:

15.1 **SCOPE**: The Organizational Conflict of Interest (OCI) Plan describes the Contractor's approach to identifying, resolving, and reporting all OCIs related to the solicitation and/or the contract.

15.2 **APPLICABLE DOCUMENTS**:

FAR 9.5 *Organizational and Consultant Conflicts of Interest*

15.3 **CONTENTS**: The Organizational Conflict of Interest (OCI) Plan shall meet the requirements of FAR 9.5 and include the following:

a. Demonstrate an understanding of (1) OCI principles and (2) the full breadth of OCI issues and the types of harm that can result.
b. Define company roles, responsibilities, and procedures for screening (i.e., identifying/recognizing, analyzing/evaluating, resolving, and reporting) existing and new business opportunities for actual/potential OCIs.
c. Identify any affiliated companies/entities (e.g., a parent company or a wholly-owned subsidiary) and procedures for coordinating OCIs with such affiliated companies/entities.
d. Explain how Teammates/Subcontractors will identify, resolve, and report OCIs.
e. Establish and require entrance training for new employees, refresher training for existing employees, and exit training for departing employees.
f. Define organizational and employee sanctions for violations of established OCI procedures/requirements/ guidelines.
g. Require periodic self-audits to ensure compliance with established OCI procedures/requirements/guidelines.
h. Define records related to the OCI plan (e.g., training and audit records) that will be made available to the Government upon request.
i. Identify the strategy (e.g., avoidance, limitation on future contracting, mitigation, etc.) for resolving each OCI that is either identified in the solicitation or created by the requirements of the solicitation/contract and explain the effect of such strategy on performance of the contract. Specific resolution strategies shall be appended to the plan.
j. Require the reporting of all potential/actual OCIs during performance of the contract. An OCI report shall include (1) a description of the conflict, (2) the plan for avoiding, neutralizing, or mitigating the conflict, and (3) the benefits/risks vis-à-vis contract performance associated with plan approval/acceptance. Specific resolution strategies shall be appended to the plan upon approval by the Government.
k. Identify how the OCI strategy fits into the task order flow process.

DRD Continuation Sheet

TITLE: Organizational Conflict of Interest (OCI) Plan **DRD NO.:** **1390MA-003**

DATA TYPE: 2 **PAGE**: 2/2

15. **DATA PREPARATION INFORMATION (CONTINUED)**:

15.4 **FORMAT**: Contractor format is acceptable.

15.5 **MAINTENANCE**: Changes shall be incorporated as required by change pages or complete reissue.

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.**: 1390 **ISSUE**: Basic 2. **DRD NO.**: **1390MA-004**
3. **DATA TYPE**: 2 4. **DATE REVISED**:
5. **PAGE**: 1/2

6. **TITLE**: Work Breakdown Structure (WBS) and WBS Dictionary

7. **DESCRIPTION/USE**: To establish a product-oriented framework for reporting program cost, schedule, and technical performance. To provide a basis for uniform planning, reporting status, program visibility, and assignment of responsibilities.

8. **OPR**: CS40 9. **DM**: ED01

10. **DISTRIBUTION**: Per Contracting Officer's letter

11. **INITIAL SUBMISSION**: 30 days after commencement of phase-in.

12. **SUBMISSION FREQUENCY**: Update as required. Revised pages shall be submitted 10 calendar days after contract WBS changes (following Government approval).

13. **REMARKS**: Reference is made to NPD 7120.4 (Current Revision), *NASA Engineering Program/Project Management Policy*, and NPR 7120.5 (Current Revision), *NASA Space Flight Program and Project Management Requirements*, NPR 7120.7 (Current Revision), *NASA Information Technology and Institutional Infrastructure Program and Project Management Requirements*, NPR 7120.8 (Current Revision), *NASA Research and Technology Program and Project Management Requirements*, and MIL-HDBK-881, *Department of Defense Handbook Work Breakdown Structure*. These documents shall be used as guides in the preparation of the WBS and the WBS dictionary.

14. **INTERRELATIONSHIP**: PWS paragraph 2.4.6

15. **DATA PREPARATION INFORMATION:**

15.1 **SCOPE:** The Work Breakdown Structure (WBS) establishes a skills-based logical subdivision of effort based on Government needs. The WBS Dictionary provides a narrative description of the tasks and effort to be performed in each WBS element.

15.2 **APPLICABLE DOCUMENTS:** None

15.3 **CONTENTS:** The WBS and WBS Dictionary are two distinct documents used for defining the approved scope of work. The contents of each document are detailed in the following paragraphs:

a. WBS - A logical, hierarchical display of the subdivision of work to be completed. The WBS shall include the approved Task Order and associated Sub-element titles and Task Order and Sub-element numbers. The level 2 of the WBS shall reflect the Skill category. The level 3 shall reflect the performing Department, Laboratory, Office or Project. The level 4 shall reflect the performing Branch and sponsoring Project and Susbsystem. In limited cases, there will be a level 5 when additional breakouts are needed. Additional accounting information shall also be reflected within the WBS. This information includes sponsoring directorate, sponsoring branch, and program. The Offeror's Automated Task Order Management System shall report information by WBS and content in DRD 1390MA-007.

b. WBS Dictionary - The WBS dictionary shall describe and document the work content of every WBS element. The WBS dictionary shall be arranged in the same order as the contract WBS. The WBS dictionary shall include the following for each WBS element:

1. WBS element title.
2. WBS element code.
3. WBS element content description (including quantities, relevant associated work, and contract end items where applicable).
4. WBS Index.

15. **DATA PREPARATION INFORMATION (CONTINUED)**:

5. PWS paragraph number.
6. Specification (number and title) associated with the WBS element (if applicable).
7. Contract line item associated with the WBS element.
8. Date, revision number, revision authorization and approved changes.
9. Contract Identification Number.
10. Budget and reporting number (i.e., Charge Code).

15.4 **FORMAT**: The WBS shall be in a chart format showing element relationships, arranged in the same order as the WBS provided Attachment J-11. The WBS Dictionary shall be ordered in consonance with the WBS index and shall reference each WBS element by its identifier and name.

15.5 **MAINTENANCE**: Changes shall be incorporated by change page or complete reissue.

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.**: 1390 **ISSUE**: Basic
2. **DRD NO.**: **1390MA-005**
3. **DATA TYPE**: 3
4. **DATE REVISED**:
5. **PAGE**: 1/1
6. **TITLE**: Task Order Activity Reports

7. **DESCRIPTION/USE**: To provide data for the assessment of contract progress by Task Order (TO) sub-element. To provide visibility to the Contractor and MSFC Management of actual and potential problems and their progress toward meeting the requirements of the contract

8. **OPR**: ED02 9. **DM**: ED02

10. **DISTRIBUTION**: Per Contracting Officer's letter

11. **INITIAL SUBMISSION**: Thirty (30) calendar days after commencement of contract.

12. **SUBMISSION FREQUENCY**: Monthly thereafter. The report shall be submitted seven (7) working days following the end of the Contractor's accounting month.

13. **REMARKS**:

14. **INTERRELATIONSHIP**: PWS paragraphs 2.4.2, 2.4.6 and 2.4.7

15. **DATA PREPARATION INFORMATION**:

15.1 **SCOPE**: The Task Order Activity Reports provide a comprehensive status on all active TO sub-elements and include the necessary information to assess status and identify problems that need resolution for accomplishment of the contract tasks.

15.2 **APPLICABLE DOCUMENTS**: None

15.3 **CONTENTS**: The Task Order Activity Reports shall include:

a. Management and Technical content:
   1. Review of work accomplished, including quantitative description, during the reporting period.
   2. Discussion of non-routine tasks planned for the next reporting period.
   3. Indication of any problems, which may impede performance or impact performance, schedule or cost; to include government provided data, hardware or decisions.
   4. Schedule with milestones, status, and time to completion if different than original milestone dates resulting from the problem identified in 3.
   5. Any estimated impact to cost resulting from the problem identified in 3.
   6. Any other information that may assist the technical evaluators in evaluating the technical and administrative program; such as innovative processes, cost-reduction initiatives, etc.

b. Cost content shall include variance analysis and reconcile with the Financial Management Report (533M) submitted in accordance with DRD 1390MA-007 for the following:
   1. Labor hours (broken down by Prime, Teammates and Subcontractor hours) expended by labor category showing overtime hours separately for each TO sub-element.
   2. Cost expended (broken down by Prime, Teammates and Subcontractor hours and broken down by cost element) versus negotiated cost for each TO sub-element.
   3. In those cases where multiple project WBS's are provided on a TO sub-element, cost detail shall be delineated to a layer lower than TO sub-element.

15.4 **FORMAT**: Contractor format is acceptable. Electronic submission of Contractor data shall be submitted in Excel format for cost data, technical content in either MS Word or MS PowerPoint, and be available via Contractor system.

15.5 **MAINTENANCE**: None required

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.**: 1390 **ISSUE**: Basic
2. **DRD NO.**: **1390MA-006**
3. **DATA TYPE**: 3
4. **DATE REVISED**:
5. **PAGE**: 1/1
6. **TITLE**: Contractor Self-Assessment Report
7. **DESCRIPTION/USE**: To provide the contractor's self-assessment of performance of contract tasks.
8. **OPR**: ED01 9. **DM**: ED01
10. **DISTRIBUTION**: Per Contracting Officer's letter
11. **INITIAL SUBMISSION**: Six (6) months after commencement of contract
12. **SUBMISSION FREQUENCY**: Six (6) months intervals
13. **REMARKS**:
14. **INTERRELATIONSHIP**: PWS paragraph 2.6.1
15. **DATA PREPARATION INFORMATION**:

15.1 **SCOPE**: The Contractor Self-Assessment Report provide the contractor's self-assessment of performance of the contract tasks and will be used in the determination of fee deductions.

15.2 **APPLICABLE DOCUMENTS**: None

15.3 **CONTENTS**: The Contractor Self-Assessment Report shall:

a. Describe the Contractor's self-assessment of Sub-element Cost Estimating including specific data needed to determine the sub-element cost estimating criteria as described in Attachment J-3, *Surveillance and Fee Evaluation Plan* for ESSSA.
b. Describe the Contractor's self-assessment of Timeliness including specific data needed to determine the timeliness criteria as described in Attachment J-3, *Surveillance and Fee Evaluation Plan* for ESSSA.
c. Describe the Contractor's self-assessment of meeting the Small Business goals including specific data needed to determine the small business criteria as described in Attachment J-3, *Surveillance and Fee Evaluation Plan* for ESSSA.
d. Describe the Contractor's self-assessment of Time to Fill Vacancies including specific data needed to determine the time to fill vacancies criteria as described in Attachment J-3, *Surveillance and Fee Evaluation Plan* for ESSSA.
e. Provide any customer feedback if collection of feedback is required in specific task orders.
f. Provide any other data the Contractor feels is pertinent (such as personnel actions, awards, risk mitigation steps completion, educational outreach, innovation, competency growth initiatives, mentoring, etc.).

15.4 **FORMAT**: Contractor format is acceptable.

15.5 **MAINTENANCE**: None required

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.**: 1390 **ISSUE**: Basic
2. **DRD NO.**: **1390MA-007**
3. **DATA TYPE**: 3
4. **DATE REVISED**:
5. **PAGE**: 1/3

6. **TITLE**: Financial Management Report (533M)

7. **DESCRIPTION/USE**: To provide monthly financial reports for monitoring program costs. The 533M reports are the official cost documents used at NASA for cost type, price redetermination, and fixed price incentive contracts. The 533M Supplemental Report is used for cost data entry in the Contractor Cost Report (CCR) Crosswalk in System Application and Product (SAP).

8. **OPR**: RS01 9. **DM**: ED02

10. **DISTRIBUTION**: Per Contracting Officer's letter

11. **INITIAL SUBMISSION**: Within thirty (30) calendar days after commencement of contract.

12. **SUBMISSION FREQUENCY**: Monthly; no later than seven (7) working days following the close of the Contractor's accounting month.

13. **REMARKS**: The data contained in the reports shall be auditable using Generally Accepted Accounting Principles.

14. **INTERRELATIONSHIP**: NFS 1852.242-73, *NASA Contractor Financial Management Reporting*, (November 2004). PWS paragraphs 2.3, 2.4.7 and 2.4.9

15. **DATA PREPARATION INFORMATION**:

15.1 **SCOPE**: The Financial Management Report provides data on accumulated costs (inception to date, contract year and fiscal year) and funding projections for management of the contract. The Financial Projection Report provides a monthly status for an entire year of the estimated and planned cost and labor hours/WYEs associated with each sub-element within a Task Order (TO).

15.2 **APPLICABLE DOCUMENTS:**

NPR 9501.2D *NASA Contractor Financial Management Reporting*

15.3 **CONTENTS**: Any other elements of cost for financial reporting shall be mutually agreed by the Contractor and MSFC. The Financial Management Report (533M) shall be prepared in accordance with the detailed instructions provided on the reverse side of the NASA Form 533M and the supplementary instructions set forth in NPR 9501.2D, Chapter 3. Any other elements of cost reported shall include *labor hours* by labor category, direct labor cost, materials, travel, training, interdivisional work, other direct rates, overhead by pool, fringe, G&A, and fee.

The monthly 533M Financial Management Report shall include actual cost and cost projections at the total contract level. Cost shall be reported to the nearest dollar.

A summary level page reflecting cumulative total contract cost since inception and by contract year shall be included. Reconciliation between the previous month's projection and current month actuals on the 533M shall be submitted as an attachment to the 533M Report.

15. **DATA PREPARATION INFORMATION (CONTINUED)**:

The 533M Supplemental Report shall include the following fields provided by month for an entire fiscal year at Task Order (TO) sub-element and one level below sub-element in limited cases. Cost shall be reported to the nearest dollar:

a. Reporting Category.
b. Contract WBS.
c. PR Number.
d. Project WBS.
e. Cost Center.
f. Fund.
g. Fiscal Year of Cost Incurred.
h. Inception to Date Cost.
i. Estimated Cost to Completion.
j. Baseline Plan.
k. Estimated Cost.
l. Actual Cost.
m. Total Incurred Cost.
n. % of Monthly Cost.
o. Baseline Hrs.
p. Estimated Hrs.
q. Actual Hrs.
r. % of Monthly Hrs.
s. % Hrs Work Year Equivalent (WYE) Plan.
t. WYE Actual.
u. Direct Labor Hours – Regular.
v. Equivalent Man-months – Regular.
w. Direct Labor Hours – Overtime.
x. Equivalent Man-months – Overtime.
y. Non-productive Hours – Paid absence (sick, vacation, and holiday).
z. Equivalent Man-months – Paid Absence.
aa. Total Direct Labor Dollars - Regular.
bb. Total Direct Labor Dollars - Overtime.
cc. Total Direct Labor Dollars – Premium.
dd. Fringe Benefits.
ee. Labor Overhead.
ff. Labor Subtotal.
gg. Equipment.
hh. Travel.
ii. Training.
jj. Relocation costs.
kk. Teammates/Subcontracts.
ll. Interdivisional work.
mm. Other Direct Costs (ODC).
nn. G&A and other ODC indirects
oo. Fee.
pp. Variance Plan vs. Actuals.
qq. Total Accrued Cost.
rr. Vouchered Cost.
ss. Funding received.
tt. Reason for Variances.

DRD Continuation Sheet

TITLE: Financial Management Report (533M) **DRD NO.**: **1390MA-007**

DATA TYPE: 3 **PAGE**: 3/3

15. **DATA PREPARATION INFORMATION (CONTINUED)**:

A 533M Cover letter explanation of any major deviation from Contractor plan (either greater than $100,000 or plus or minus 5 percent by contract WBS).

A separate Excel Transaction History Report is required by sub-element showing funding transactions to include appropriate financial funding identifiers to be provided by NASA.

15.4 **FORMAT**: The data for the report shall originate from the Contractor's financial system. The NASA Form 533M shall be prepared per NPR 9501.2D and NFS 1852.242-73. Contractor format is acceptable provided all necessary requirements are met. The report shall be submitted in an electronic Excel format and shall be made available via the Contractor's ATOMS.

15.5 **MAINTENANCE**: None required

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.**: 1390 **ISSUE**: Basic
2. **DRD NO.**: **1390MA-008**
3. **DATA TYPE**: 3
4. **DATE REVISED**:
5. **PAGE**: 1/1
6. **TITLE**: Funding Projection Report

7. **DESCRIPTION/USE**: To provide monthly financial reports for monitoring funding projections for use in assessing funding requirements.

8. **OPR**: ED02 **DM**: ED02

10. **DISTRIBUTION**: Per Contracting Officer's letter

11. **INITIAL SUBMISSION**: Thirty (30) calendar days after commencement of contract.

12. **SUBMISSION FREQUENCY**: Monthly; no later than seven (7) working days following the end of the Contractor's accounting month.

13. **REMARKS**: The data contained in the reports must be auditable using Generally Accepted Accounting Principles.

14. **INTERRELATIONSHIP**: PWS paragraphs 2.3, 2.4.2 and 2.4.7

15. **DATA PREPARATION INFORMATION**:

15.1 **SCOPE**: The Funding Projection Report will provide data by a moving quarterly breakout of the next twelve months on the status of each TO sub-element or level as defined byMSFC.

15.2 **APPLICABLE DOCUMENTS**: None

15.3 **CONTENTS**: The Funding Projection Report shall be submitted containing the following information:

a. TO Sub-element Number.
b. Status (Open or Closed).
c. Project WBS.
d. Cost Center.
e. Fund.
f. Carryover from prior fiscal year.
g. Current FY Funded Amount.
h. Total Available Funding.
i. Actual Cost to Date (FY).
j. Current quarterly projection detailed by month.
k. Delta to reflect remaining funding for the current quarter.
l. Projections for remaining quarters.
m. Total twelve month projection.
n. Summary Chart shall be provided for Sponsoring Organization, Sponsoring Program/Project, and Performing Organization.

15.4 **FORMAT**: The report shall be submitted in Excel and accessible via the Contractor's system.

15.5 **MAINTENANCE**: None required

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.**: 1390 **ISSUE**: Basic
2. **DRD NO.**: **1390MA-009**
3. **DATA TYPE**: 3
4. **DATE REVISED**:
5. **PAGE**: 1/2

6. **TITLE**: Weekly Contract Status Briefing

7. **DESCRIPTION/USE**: To provide a weekly contractual status to the COTR/CO.

8. **OPR**: ED01 9. **DM**: ED01

10. **DISTRIBUTION**: Per Contracting Officer's Letter

11. **INITIAL SUBMISSION**: Ten (10) calendar days after commencement of phase-in.

12. **SUBMISSION FREQUENCY**: Weekly

13. **REMARKS**: At the request of the COTR/CO, the weekly status will also include a verbal review.

14. **INTERRELATIONSHIP**: PWS paragraph 2.4, clauses H.5, 1852.216-80 *Task Ordering Procedure*, H.6, *Supplemental Task Ordering Procedures* and H.7, *Task Order Cost Increase Notification Requirements*. PWS paragraph 2.4.7

15. **DATA PREPARATION INFORMATION**:

15.1 **SCOPE**: The Weekly Status Briefing shall provide a written weekly overview of the contractual activities.

15.2 **APPLICABLE DOCUMENTS**: None

15.3 **CONTENTS**: The Weekly Status Briefing shall contain the following:

a. In-Progress Task Order Plan (TOP)/Task Order Change Plan (TOCP) Tracking Report providing the age of the TOP/TOCP since Contractor receipt of the Task Order Request (TOR)/Task Order Change Request (TOCR) and stage in the approval cycle.
b. Contract Staffing Status providing the number of Work Year Equivalents (WYEs) by prime, teammate/ major subcontractor, and minor/specialty subcontractors and a contract staffing trend over a rolling 13-week period.
c. Contract Vacancy Status providing the open vacancies per task order (include details such as labor category and any specialty requirements of the position), age of the unfilled vacancy, status of fulfillment, and a total contract vacancy trend over a rolling 13-week period.
d. Skills Management Status providing the contractor personnel and their associated skills whose tasks are at risk of expiring and status on potential transition to another task order.
e. Any Task Order increase or decrease notifications as required by Clause H.7, *Task Order Cost Increase Requirements*.
f. Action/Suspense Items and Status.
g. Once a month, the Weekly Status Briefing shall contain the following additional items:
    1. Lost Time Incident Rate for the month and a lost time incident rate trend over a rolling 12-month period. Compare contractor's rate to the national average.
    2. Monthly Financial Summary to include the current month and contract year cumulative estimated versus actuals comparison for labor hours by labor category, labor cost and each other direct cost applicable to the contract. A contract year summary by month shall also be provided.
    3. Funding Analysis providing a contract year by month summary comparison of estimated value, actual costs, and total funding received for the total contract and each Engineering Directorate department and other MSFC offices.
    4. Rate Analysis for each labor category providing a contract year by month summary comparison of the Attachment J-9, Not-To-Exceed estimating rates and the actual average rate.

15. **DATA PREPARATION INFORMATION (CONTINUED)**:

5. Small Business Subcontracting Analysis providing a contract year by month summary comparison of actual versus the goals for each small business category.
6. Voluntary attrition rates for the month and a voluntary attrition rate trend over a rolling 12-month period. Include a number breakdown by reason for the attrition.
7. Active Task Order Summary Report providing a listing of active task order by each Engineering Directorate department and other MSFC offices that includes the following: TO number, active sub-elements, TO title, Contractor Task Lead, MSFC Initiator, MSFC Resource Analyst, WYEs (prime/ teammate/major subcontractor and minor/specialty subcontractor), and period of performance.
8. Contract Year Task Order Value Summary Report providing a listing of each task order issued during the contract year that includes the following information: TO number, latest TO revision, TO status (i.e., closed or open), TO title, previous negotiated cost, fee, and total value per evaluation period, changes to the negotiated cost, fee, and total value per evaluation period during the reported month, and revised negotiated cost, fee, and total value per evaluation period.
9. Report of Material, supplies, tools, and equipment purchases made during the month providing description, acquisition cost, extent of competition, associated task order, and CO approval obtained. Items requiring transfer of accountability to the Government shall be tracked each month until such transfer has occurred.

NOTE: During Phase-In and at the beginning of the contract, the Contractor shall provide the cumulative available data to provide status for the requirements identified above in Paragraph 15.3.

15.4 **FORMAT**: Contractor format is acceptable provided all necessary requirements are met. The Active Task Order Summary Report and the Contract Year Task Order Value Summary Report shall be provided in Excel format and made available in the Contractor's automated task ordering management system.

15.5 **MAINTENANCE**: None required

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.**: 1390 **ISSUE**: Basic
2. **DRD NO.**: **1390SA-001**
3. **DATA TYPE**: 2
4. **DATE REVISED**:
5. **PAGE**: 1/7

6. **TITLE**: Safety, Health, and Environmental (SHE) Plan

7. **DESCRIPTION/USE**: A contractor generated document that is written specifically by the contractor for the work that will conducted at Marshall Space Flight Center (MSFC) or at Michoud Assembly Facility (MAF). The contractor's SHE plan shall describe the specific approach the contractor will use to implement their SHE program at MSFC or MAF while also ensuring it is compliant with the MSFC SHE Core Program Requirements (CPRs), MSFC or MAF SHE related applicable documents, and the MSFC or MAF Quality Management System. The contractor's SHE Plan shall describe how the contractor will (1) provide a workplace that is incident and injury free by (a) preventing employee fatalities, (b) reducing the number of incidents, and (c) reduce the severity of employee injuries and illnesses, and (2) protect the environment by complying with the MSFC or MAF Environmental Management System through the ongoing planning, implementation, integration and management control of the contractor's industrial safety, occupational health, and environmental program in accordance with NFS 1852.223-73.

8. **OPR**: AS10/QD12 9. **DM**: ED01

10. **DISTRIBUTION**: Per Contracting Officer's (CO) letter

11. **INITIAL SUBMISSION**: Submit with proposal

12. **SUBMISSION FREQUENCY**: After initial submission, when any new or revised proposed or previously approved SHE Plan is requested or required by the CO, Contracting Officer's Technical Representative (COTR), solicitation, or award or is otherwise required.

13. **REMARKS**:

14. **INTERRELATIONSHIP**: NFS 1852.223-70, *Safety and Health;* NFS 1852.223-73, *Safety and Health Plan*; NFS 1823.223-74, *Drug-and alcohol-free workforce*; FAR 52.204-4, *Printed or Copied Double-Sided on Recycled Paper*; FAR 52.223-1, *Biobased Product Certification*; FAR 52.223-2, *Affirmative Procurement of Biobased Products Under Service and Construction Contracts*; FAR 52.223-4, *Recovered Material Certification*; FAR 52.223-5, *Pollution Prevention and Right-to-Know Information*; FAR 52.223-7, *Notice of Radioactive Materials*; FAR 52.223-10, *Waste Reduction Program*; FAR 52.223-12, *Refrigeration Equipment and Air Conditioners*; FAR 52.223-14, *Toxic Chemical Release Reporting;* FAR 52.223-15, *Energy Efficiency in Energy-Consuming Products;* FAR 52.223-16, *IEEE 1680 Standard for Environmental Assessment of Personal Computer Products*; MSFC 52.223-90, *Asbestos Material;* MSFC 52.223-91, *Hazardous Material Reporting*; MSFC 52.223-92, *Environmental – General Clause*. DRDs 1390EE-001, *Environmental and Energy Consuming Product Compliance Reports,* 1390SA-002, *Contractor Personnel Certification Plan* and 1390SA-003, *Mishap and Safety Statistics Reports*. PWS paragraph 2.1.6

15. **DATA PREPARATION INFORMATION**:

15.1 **SCOPE**: The Safety, Health, and Environmental Plan shall describe the specific methods the contractor will implement for planning, controlling and enforcing their industrial safety, occupational health, and environmental requirements over the duration of this contracted effort while also ensuring compliance with the MSFC SHE Program requirements.

15. **DATA PREPARATION INFORMATION (CONTINUED)**:

15.2 **APPLICABLE DOCUMENTS**: Code of Federal Regulations (CFR) and listed consensus standards are applicable to all contracts to the extent specified in the contract. NASA and MSFC documents are applicable to all contracts performed at MSFC and at MAF to extent specified in the contract.

29 CFR Part 1910	*Department of Labor; Occupational Safety and Health Administration Standards for General Industry*
29 CFR Part 1926	*Department of Labor; Occupational Safety and Health Administration Standards for Construction Industry*
CFR Title 40 Parts 1-1068	*Protection of Environment*
ANSI Standards applicable to the scope of this contract	
NFPA Standards	*National Fire Codes*
Executive Order 13423	Strengthening Federal Environmental, Energy, and Transportation Management
NASA-STD-8719.11	*Safety Standard for Fire Protection*
NPR 3792.1	*Plan for a Drug-Free Workplace*
NPR 8715.3	*NASA General Safety Program Requirements*
MPD 1280.1	Marshall Quality Management System Manual
MPD 1800.1	*MSFC Smoking Policy*
MPD 1840.1	*MSFC Environmental Health Program*
MPD 1840.2	*MSFC Hearing Conservation Program*
MPD 1840.3	*MSFC Respiratory Protection Program*
MPD 1860.2	*Radiation Safety Program*
MPD 8570.1	*MSFC Energy and Water Management Program*
MPR 1040.3	*MSFC Emergency Plan*
MPR 1800.1	*Bloodborne Pathogens and Biohazardous Materials*
MPR 1800.2	*MSFC Ergonomics Program*
MPR 1800.3	*MSFC Sanitation Program*
MPR 1810.1	*MSFC Occupational Medicine*
MPR 1840.1	*MSFC Confined Space Entries*
MPR 1840.2	*MSFC Hazard Communication Program*
MPR 1840.3	*MSFC Hazardous Chemicals in Laboratories Protection Program*
MPR 1840.4	*MSFC Asbestos Program*
MPR 1860.1	*MSFC Radiation Safety Procedural Requirements*
MPR 1860.2	*Nonionizing Radiation Safety*
MPR 3410.1	*Training*
MPR 8500.1	*MSFC Environmental Management Program*
MPR 8500.2	*MSFC Environmental Management System (EMS)*
MPR 8715.1	*Marshall Safety, Health and Environmental (SHE) Program*
MWI 1810.1	*Automated External Defibrillator (AED) Program*
MWI 3410.1	*Personnel Certification Program*
MWI 8540.2	*Green Purchasing Program*
MWI 8621.1	*Mishap and Close Call Reporting and Investigation Program*
MWI 8715.1	*Electrical Safety Program*
MWI 8715.2	*Control of Hazardous Energy (Lockout/Tagout) Program*
MWI 8715.3	*Hazard Identification & Warning System*
MWI 8715.4	*Personal Protective Equipment (PPE) and Systems*
MWI 8715.5	*Area/Building Manager Program*
MWI 8715.10	*Explosives, Propellants, & Pyrotechnics Program*
MWI 8715.11	*Fire Safety Program*
MWI 8715.12	*Safety, Health, and Environmental-Finding Tracking System (SHEtrak)*
MWI 8715.13	*Safety Concerns Reporting System (SCRS)*
MWI 8715.15	*Ground Operations Safety Assessment Program*
MWI 8715.16	*Supervisor Safety, Health and Environmental (SHE) Visits*
MWI 8715.17	*Hazardous Operations Readiness Review Program*

15. **DATA PREPARATION INFORMATION (CONTINUED)**:

15.3 **CONTENTS**: The contractor's Safety, Health, and Environmental (SHE) Plan shall be written specifically for the work to be conducted at MSFC or MAF. The plan shall provide a clear description of the contractor's approach to (1) implementing their SHE program at MSFC or MAF, (2) providing a workplace that is incident and injury free by (a) preventing employee fatalities, (b) reducing the number of incidents and (c) reducing the severity of employee injuries and illnesses, (3) protecting the environment by complying with the MSFC or MAF's Environmental Management System, and (4) the methods for ensuring their SHE program is maintained compliant with (a) the following MSFC SHE Core Program Requirements (CPR), (b) the applicable SHE related documents listed in 15.2 to the extent specified as applicable to this contracted effort and (c) the MSFC or MAF Quality Management System. (**NOTE 1**: Contractors can identify innovations and enhancements that are part of their SHE Program and go beyond what is required by the MSFC SHE core program requirements. (**NOTE 2**: A contractor's corporate SHE plan is not considered as being written specifically for the work to be conducted at MSFC or MAF and shall not be submitted for consideration.)

a. CPR 1 - Management Leadership and Employee Involvement:

1. A description of the contractor's safety, health and environmental policy and their management's commitment to (1) initiate a visible and proactive culture in the workplace that values the safety and health of their employees, (2) provide a safe and healthful workplace for their employees, customers, and public that is free from incidents and injuries, (3) evaluate the safety performance of subcontractors or teammates, when applicable, and (4) protect property and the environment over the duration of this contracted effort.
2. A description of methods the contractor will use to ensure their work activities, procedures and processes are conducted so that they are in compliance with EPA, OSHA, NASA, MPR 8715.1, all MSFC SHE documents, and processes listed in 15.2 that contain requirements specified as applicable to this contracted effort and the MSFC or MAF Quality Management System.
3. A description of the methods the contractor will use to ensure employees are encouraged and allowed to participate and be involved in their SHE Program (e.g., participate in safety committees, worksite inspections, accident investigations, the development of job hazard analysis, provide suggestion for improvements to their SHE program and report hazardous working conditions).
4. A description of the methods the contractor will use to ensure managers and employees are (1) encouraged to take responsibility for their safety and health and that of other employees, (2) encouraged to make safety a priority in the performance of their work processes, (3) held accountable to perform their jobs/tasks in a safe and healthful manner while also protecting property and the environment, and (4) fully understand their roles and responsibilities in their SHE Program.
5. A description of the methods the contractor will use to ensure the accountabilities, roles and responsibilities listed in a.4 are also flowed-down to subcontractors or teammates, when applicable.
6. A description of the methods the contractor will use to conduct and document monthly SHE meetings and awareness training for employees. (**NOTE:** Contractors located on-site at MSFC or MAF, when applicable, shall document their monthly SHE awareness training/meeting in the MSFC Supervisors Safety Web page (SSWP).
7. A description of the methods the contractor will use to conduct and document self evaluations of their SHE Program in order to determine its effectiveness. Provide the frequency of these self evaluations.
8. A description of the methods the contractor will use to obtain feedback from employees for their perception about the effectiveness the contractor's SHE Program. Provide the frequency of this feedback.
9. A description of the methods the contractor will use to ensure their SHE plan is maintained current with contract, NASA and MSFC requirements, and is reviewed and updated as necessary. Provide the frequency of this review.
10. Provide the identification, by title, of the individual assigned by the contractor to be responsible to implement the contractor's SHE program elements and designated to serve as the day-to-day SHE Point of Contact (POC) for this contracted effort.

15. **DATA PREPARATION INFORMATION (CONTINUED)**:

b. CPR 2 - Worksite Analysis:

1. A description of the methods the contractor will use to ensure each contractor supervisor conducts and documents monthly worksite inspections and safety visits to ensure employees (1) are provided with safe and healthful working environment, (2) unsafe and unhealthful conditions are corrected within a timely manner when they are discovered in accordance with MWI 8715.12 and (3) are performing their jobs/tasks/operations in a safe and healthful manner. (**NOTE**: Contractor supervisors' located on-site at MSFC or MAF, when applicable, shall perform safety inspections and visits once per month per supervisor and document the results of these visits in the MSFC SSWP, in accordance with MPR 8715.1 and MWI 8715.16. Contractors located off-site shall perform worksite safety inspections as required by OSHA).
2. A description of the methods the contractor will use to ensure employees are encouraged to report any concern/condition that they feel has the potential to cause (1) injury/illness to or death personnel or the public; (2) damage to or lose of facilities/equipment; (3) an undesired outcome that could result in a serious adverse impact on mission capability or operability; or (4) detrimental impact to the environment and the surrounding community without the fear of reprisal from management, and how these reports are documented and receive a timely response from management to investigate and eliminate the concern/condition. (**NOTE**: Contractors located at MSFC and MAF, when applicable, can use the reporting process described in MWI 8715.13 as their employee safety concern reporting system).
3. A description of the methods the contractor will use to ensure all contractor incidents/mishaps and close calls are reported, documented, and investigated to the extent necessary to determine the proximate or root cause(s) in accordance with MWI 8621.1 (Reference DRD 1390SA-003, *Mishap and Safety Statistics Report*).
4. A description of the contractor's policy for conducting post-mishap drug and alcohol testing when the initial mishap investigation provides reason to believe an employee's actions or failure to perform a required action is reasonably suspected of having caused or contributed to causing the mishap in accordance with NPR 3792.1and MWI 8621.1 (**NOTE**: In the event a mishap results in a fatality or serious injury requiring immediate hospitalization, or substantial damage to property estimated to exceed $10,000, post-mishap drug and alcohol testing can be required by the government and the results of these tests shall be provided to the MSFC Contracting Officer).

c. CPR 3 - Hazard Prevention and Control:

1. A description of the methods the contractor will use to ensure they are fully compliant with the MSFC SHE documented programs and processes listed in 15.2 that contain requirements that are applicable to this contracted effort while working on-site at MSFC (e.g., Personal Protective Equipment (PPE), Respiratory Protection, Hazard Communication, Confined Space Entry, Control of Hazardous Energy (Lockout/Tagout), Bloodborne Pathogens). (**NOTE**: MSFC SHE documented programs and processes listed in 15.2 are also applicable to work conducted at MAF, when applicable. Include contractor programs for work conducted off-site, when applicable).
2. A description of the methods the contractor will use to ensure (1) an emergency management program is implemented that will respond to all types of emergencies that can occur at their worksite during this contracted effort (e.g., fire, chemical spill, accidents, natural disasters) and (2) all employees are informed and aware of what they are to do, and who they are to contact in the event an emergency occurs. (**NOTE**: Contractors located on-site at MSFC and MAF, when applicable, can use MPR 1040.3 as their emergency management program. A list of emergency phone numbers and points-of-contacts is to be posted at the worksite for employee reference).
3. A description of the methods the contractor will use to ensure safety, health, and environmental services that are applicable to this contracted effort are provided (i.e., hazardous waste disposal, industrial hygiene monitoring, emergency medical support, hearing conservation program, respiratory protection, and hazard communication, etc.). Provide a list of the environmental and health services that **are not provided** by MSFC or MAF, when applicable.

15. **DATA PREPARATION INFORMATION (CONTINUED)**:

4. A description of the methods the contractor will use to ensure all employees are provided with fall protection and protected from potential fall hazards when they are on walking/working surfaces with unprotected sides or edges and the potential exists for them to fall to the next lower level in accordance with 29 CFR Part 1926.501, 29 CFR Part 1926.502, 29 CFR Part 1910.23, and MWI 8715.4 when applicable. (**NOTE**: In cases where it can be demonstrated that the use of conventional fall protection systems are infeasible or greater hazards can be created by using conventional fall protection system an additional "Site Specific Fall Protection Plan" is required and shall be submitted for Government approval).

d. CPR 4 - Safety, Health and Environmental Training:

1. A description of the methods the contractor will use to ensure each contractor employee is informed and trained to (1) recognize conditions in the workplace that have the potential or probability to cause injury/illness or death to personnel or the public; (2) damage to or lose of facilities/equipment; (3) an undesired outcome that could result in a serious adverse impact on mission capability or operability; or (4) detrimental impact to the environment and the surrounding community; and (5) be able to recognize signs and symptoms of workplace-related illnesses. (**NOTE**: Contractors shall maintain a record of this training and provide documentation of this training to the Government, when requested).
2. A description of the methods the contractor will use to ensure each contractor employee is informed and trained to fully understand they are empowered and authorized to "stop or halt" any activity when they have reason to suspect that the activity is unsafe and has the potential or probability to cause (1) injury/illness to or death personnel or the public; (2) damage to or lose of facilities/equipment; (3) an undesired outcome that could result in a serious adverse impact on mission capability or operability; or (4) detrimental impact to the environment and the surrounding community. (**NOTE 1**: When an activity is "stopped or halted" the activity cannot resume until the condition has been corrected. On-site at MSFC the Industrial Safety Branch shall be notified and at MAF the S&MA representative shall be notified). (**NOTE 2**: Contractors shall maintain a record of this training and provide documentation of this training to the Government, when requested).
3. A description of the methods the contractor will use to clearly communicate the contractor's disciplinary policy/program (1) to ensure each contractor employee is trained and fully understands the contractor's disciplinary policy/program, (2) the actions that can be taken by the contractor when an employee is discovered not following safety, health, and environmental policies, procedures and rules, and disciplinary actions are warranted, (3) the actions are equitably enforced to all contractor employees, and (4) the contractor's disciplinary policy/program is flowed-down to subcontractors or teammates , when applicable. (**NOTE**: Contractors shall maintain a record of this training and provide documentation of this training to the Government, when requested).
4. A description of the methods the contractor will use to evaluate each operation/job performed by contractor employees in support of this contracted effort to (1) identify the specific training required for the employees, and (2) ensure the employees have received the training prior to performing the operation/job in order to perform the operation/job in a safe and healthful manner. (**NOTE 1**: Contractors located at MSFC and MAF, when applicable, are to document this evaluation by using the MSFC SHE Training Assessment tool located on the MSFC Supervisor Safety Web Page (SSWP). (**NOTE 2**: Contractors shall maintain a record of this training and provide documentation of this training to the Government, when requested).

15. **DATA PREPARATION INFORMATION (CONTINUED)**:

5. A description of the methods the contractor will use to ensure (1) contractor employees have received the necessary training, experience and knowledge to be "qualified" to operate equipment and machinery or perform a specific operations/jobs and (2) contractor employees designated as "competent" have (a) received the necessary training and experience, (b) are capable of identifying the hazards associated with the operation, (c) has the authority to take the necessary corrective actions, and (d) is knowledgeable of and understands the mandatory and applicable regulations, and standards associated with the equipment or operation. (**NOTE 1**: Operations/jobs identified to require a "Qualified" and/or "Competent" employee are identified in 29 CFR 1910 and/or 29 CFR 1926.) (**NOTE 2**: Contractors shall maintain a record of this training and provide documentation of this training to the Government, when requested).
6. A description of the methods the contractor will use to ensure each contractor employee and supervisor receives the SHE training identified by MSFC as "mandatory or required." Contractor employees are to receive this training within 60 days and supervisors within 90 days of the Authority to Proceed (ATP) or their arrival at the worksite and refresher training as required. (**NOTE 1**: Employees shall receive, at a minimum, the following training SHE 101, "MSFC Safety, Health and Environmental (SHE) Program," SHE 102, "MSFC SHE Program Refresher Training," and SHE 152, "Hazard Identification and Warning Systems." (**NOTE 2**: Supervisors shall receive SHE 106, "Safety Visit Training for Supervisors," SHE 118, "MSFC SHE Training for Managers/Supervisors," and SHE 126, "Job Hazard Analysis.") (**NOTE 3:** See the Office of Human Capital webpage of a list of "mandatory or required" training. Most of these training courses are located in SATERN.) (**NOTE 4**: Contractors shall maintain a record of this training and provide documentation of this training to the Government, when requested).
7. A description of the methods the contractor will use to ensure contractor employees receive a MSFC Safety Certification when located at MSFC or MAF, when applicable, and MWI 3410.1, "*Personnel Certification Program"* identifies a safety certification is required for the job/task they are expected to perform in support of this contracted effort. (**NOTE 1**: Contractors located at MSFC and MAF, when applicable, shall document the safety certifications required by MWI 3410.1 in the MSFC Certification Database (CERTRAK). (**NOTE 2**: Contractors shall maintain a record of this training and provide documentation of this training to the Government, when requested.) (**NOTE 3**: Contractors may also be required to also describe this method in accordance with DRD 1390SA-002, "Personnel Certification Plan.") (**NOTE 4**: Training provided by the NASA Safety Training Center (NSTC) may be provided to on-site contractors on a "space available basis." Contractors should not totally rely on MSFC providing training identified for MSFC Safety Certification(s). Contractors may be asked to develop contractor specific training to be used for their employee certifications per CPR 4(8) or obtain equivalent training from an outside training source.
8. A description of the methods the contractor will use to ensure that a copy of any contractor developed training, used in lieu of MSFC provided training for a MSFC Safety Certification(s), is provided to the MSFC Industrial Safety Branch for approval prior to its use. (**NOTE**: At MAF provide a copy of the training to the MSFC S&MA representative located at MAF for approval prior to use, when applicable).

e. CPR 5 - Environmental Management System: A description of the methods the contractor will use to ensure compliance with environmental laws and regulations CFR Title 40 Parts 1-1068, Alabama Department of Environmental Management (ADEM), Executive Order 13423 and 13514, MPR 8500.1 and 8500.2 by:

1. Complying with MWI 8550.5 for reporting and management of chemicals.
2. Implementing and reporting green procurements in accordance with MWI 8540.2.
3. Reducing, reusing, and recycling of hazardous and toxic substances prior to disposal in accordance with MPR 8500.1.
4. Managing stormwater pollution in accordance with MWI 8550.2.
5. Ensuring equipment and processes are permitted by applicable Clean Air Act Title V permit and in accordance with MWI 8550.4.

15. **DATA PREPARATION INFORMATION (CONTINUED)**:

6. Managing solid and hazardous waste as permitted by applicable laws in accordance with MWI 8550.1.
7. Managing wastewater discharges in accordance with MWI 8550.3.

(**NOTE**: Contractors may also be required to also describe these methods in accordance with DRD 1390EE-001, "Environmental and Energy Consuming Product Compliance Reports.")

15.4 **FORMAT**: Contractor format is acceptable, but it is recommended for the contractor to follow the order of MSFC SHE CPRs as they are shown in 15.3 or provide a Matrix that clearly links where each MSFC SHE CPR sub-element is addressed in the contractor's SHE Plan. Corporate SHE plans are prohibited from being submitted. The contractor's SHE plan submitted in accordance with this DRD shall be written specifically for the work being performed by the contractor in support of this solicitation.

15.5 **MAINTENANCE**: Changes shall be incorporated by change page or complete reissue.

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.**: 1390 **ISSUE**: Basic
2. **DRD NO.**: **1390SA-002**
3. **DATA TYPE**: 2
4. **DATE REVISED**:
5. **PAGE**: 1/2

6. **TITLE**: Contractor Personnel Certification Plan

7. **DESCRIPTION/USE**: A contractor generated document that describes the contractor's approach for implementing a personnel training and certification program for critical processes or potentially hazardous operations when required by a NASA program/project. This personnel training and certification program is for the training and certifications that are specified by the NASA project/program or by the contractor. These certifications are for those that are not normally included in MWI 3410.1, *Personnel Certification Program*.

8. **OPR**: QD12/QD21/ED01 9. **DM**: ED01

10. **DISTRIBUTION**: Per Contracting Officer's letter

11. **INITIAL SUBMISSION**: Fifteen (15) days prior to commencement of contract.

12. **SUBMISSION FREQUENCY**: Revise as required

13. **REMARKS**:

14. **INTERRELATIONSHIP**: DRD 1390SA-001, *Safety, Health and Environmental (SHE) Plan*. PWS paragraph 2.1.9

15. **DATA PREPARATION INFORMATION**:

15.1 **SCOPE**: The Contractor Personnel Certification Plan provides the processes for training, certification, and re-certification of personnel engaged in the performance of critical processes or potentially hazardous operations identified by the NASA program/project or contractor that require specific training and/or certification. The purpose of the training and/or certification program is to ensure all contractor personnel performing the critical processes or potentially hazardous operation are capable of performing these processes or operations without endangering themselves or fellow employees, equipment, facilities and meet NASA program/project requirements. When these critical processes or potentially hazardous operations are identified by the NASA program/project or by the contractor, they are performed by trained and certified personnel.

15.2 **APPLICABLE DOCUMENTS:**

MPR 3410.1	*Training*
MWI 3410.1	*Personnel Certification Program*
NPR 8715.3	*NASA General Safety Program Requirements*

15.3 **CONTENTS**: The Contractor Personnel Certification Plan (PCP) shall provide a description of the methods and processes the Contractor will implement to ensure an effective training, certification and recertification program for Contractor personnel that perform critical or potentially hazardous processes and operations when required to meet a specific task order or as required by a MSFC organization or by the Contractor. The Contractor may elect to use the MSFC managed certification tracking database, CERTRAK, to track the certifications. The plan shall comply to the applicable documents listed in 15.2 and shall describe how the program will be administered. The plan shall describe the method used to select critical processes or potentially hazardous operations that require a certification and list all critical processes or potentially hazardous operations that require training, certification and recertification requirements. Examples include, but are not limited to, the following:

a. High pressure tubing fabrication and assembly.
b. Welding and material joining operations
c. Control system fabrication, assembly, and operation.
d. System or component fabrication, assembly, and operation.
e. Schematic or drawing comprehension.

DRD Continuation Sheet

TITLE: Personnel Certification Plan **DRD NO.**: **1390SA-002**

DATA TYPE: 2 **PAGE**: 2/2

15. **DATA PREPARATION INFORMATION (CONTINUED)**:

NPR 8715.3 and MWI 3410.1 provide a list of critical processes and potentially hazardous operations and skills that require a NASA or MSFC certification. If the Contractor performs any process or operation identified in MWI 3410.1 they are required to follow the training and certification process identified in MPR 3410.1 and MWI 3410.1. Examples of certifications required by NASA and/or MSFC include, but are not limited to, the following:

a. Forklift, crane and hoist operators.
b. Cryogenic and other hazardous pressure system operators.
c. Propellant & Explosive Handlers.
d. Hazardous chemical/toxic material handling.
e. Confined space entry.
f. Electrical/instrumentation cable fabrication (including test articles):
    1. Crimping.
    2. Cabling, Harnessing, and Wiring.
    3. Soldering including Surface Mount Technology
    4. Staking and Conformal Coating.
    5. Electrostatic Discharge Control
g. Welding inspection and nondestructive evaluation
    1. Penetrant Testing.
    2. Magnetic Particle Testing.
    3. Eddy Current Testing.
    4. Radiographic Testing.
    5. Thermal/Infrared Testing.
    6. Visual Testing

For each operation or process requiring a certification, the plan shall describe the following:

a. Certification requirements/skills:
    1. Education, training, skills and other qualifications. Include a copy of any Contractor developed training that will be used by the Contractor in lieu of MSFC developed training for a MSFC Safety Certification required by MWI 3410.1 to the MSFC Industrial Safety Branch for approval prior to use.
    2. Physical condition, if applicable.
b. Certification process:
    1. Testing process (written and/or proficiency testing).
    2. On-Job-Training (OJT), if applicable.
    3. Documentation, training, and duration of the certification.
    4. Supervision responsibilities.
    5. Certifying authority.

15.4 **FORMAT**: Contractor format is acceptable.

15.5 **MAINTENANCE**: Changes shall be incorporated by change page or complete reissue.

DATA REQUIREMENTS DESCRIPTION (DRD)

1. **DPD NO.**: 1390 **ISSUE**: Basic
2. **DRD NO.**: **1390SA-003**
3. **DATA TYPE**: 3
4. **DATE REVISED**:
5. **PAGE**: 1/3
6. **TITLE**: Mishap and Safety Statistics Reports
7. **DESCRIPTION/USE**: To provide initial and follow-up reporting of mishaps, close calls, serious non-occupational injuries or illnesses, and contractor monthly safety metrics to the government.
8. **OPR**: QD12 9. **DM**: ED01
10. **DISTRIBUTION**: Per Contracting Officer's letter
11. **INITIAL SUBMISSION**:
    a. **Safety Statistics** shall be submitted by the 10th of each month after commencement of contract. The safety statistics shall be for the contractor's previous month's work. The contractor monthly safety statistics shall be sent to the MSFC Industrial Safety Branch. If work is performed at Michoud Assembly Facility (MAF) the contractor monthly safety statistics shall be submitted to the MSFC Safety and Mission Assurance (S&MA) representative located at MAF.
       1. Safety statistics shall be reported using MSFC Form 4371 or an equivalent electronic notification system that includes the information listed in 11.a.2.
       2. Safety statistics reports shall include: contract number, subcontractors, NAISC codes and the following for the reporting period: number of employees, number of supervisors, hours worked, and number of injuries including days away from work and/or first-aide cases, number of incidents involving equipment or property damage, and number of supervisors and employees up-to-date with required MSFC Safety, Health, and Environmental (SHE) Training. (SHE training is only applicable to onsite contracts.)
    b. **Initial reporting for Type A, Type B, and Type C that involves a lost time injury or illness, and any High-Visibility Close Calls** for **ALL** contractors working **onsite** shall be reported to MSFC Industrial Safety Branch as soon as possible after initiating emergency response, but **no later than 1 hour** of occurrence or awareness. For these types of mishaps the initial notification can be made by calling the Safety Hotline (256) 544-0046 then followed up within 24 hours with an entry into the NASA Incident Reporting Information System (IRIS) by the contractor designated IRIS representative. At MAF call (504) 257-2526.
    c. **Initial reporting for Type C that does not involve a lost time injury or illness, Type D, and Low-Visibility Close Calls** for **ALL** contractors working **onsite** shall be reported to the MSFC Industrial Safety Branch as soon as possible after initiating emergency response, but **no later than 4 hours** of occurrence or awareness by:
       1. Direct input through the "SHE Report" located on the Safety, Health & Environmental (SHE) webpage located on "Inside Marshall." On the SHE webpage select the "Mishaps, Questions and Concerns" pull-down menu, then select "Report Mishaps/Close Calls/Concerns." (At MSFC this is the preferred method of reporting), or
       2. Calling the Safety Hotline (256) 544-0046, [at MAF call (504) 257-2526] or
       3. Direct input into the NASA Incident Reporting Information System (IRIS) by the contractor designated IRIS representative. Access to IRIS database can be obtained from the MSFC S&MA IRIS administrator located in the MSFC Industrial Safety Branch after contract award.
    d. **Initial reporting for Type A, Type B, Type C that involves a lost time injury or illness, and any High-Visibility Close Calls** for contractors working **offsite** shall be reported to MSFC Industrial Safety Branch as soon as possible after initiating emergency response, but **no later than 1 hour** of occurrence or awareness by calling the Safety Hotline (256) 544-0046 then followed up within 24 hours with an entry into the NASA Incident Reporting Information System (IRIS) by the contractor designated IRIS representative.
       1. If a contractor employee has any type mishap while visiting a MSFC controlled site, they shall report immediately to their site sponsor in addition to other reporting requirements.
    e. **Initial reporting for Type C that does not involve a lost time injury or illness, and D and Low-Visibility Close Calls** for contractors working **offsite** shall be reported via the Safety Statistics Report submitted monthly.

11. **INITIAL SUBMISSION (CONTINUED)**:

f. **Initial reports for all mishaps and Close Calls** shall provide as much information as possible, but at a minimum include the following: location and time of incident, number of fatalities, number hospitalized, type of damage, estimated cost, brief description, and contact person's name and phone number in accordance with MWI 8621.1 and NPR 8621.1.

g. **Reporting of a non-work-related fatality or serious injury or illnesses that occur to contractor employee while working onsite shall be within 24 hours** of occurrence or awareness of injury by:

1. Notifying the Contracting Officer and MSFC Industrial Safety Branch. (For contractors working offsite reporting of a non-work-related injury or illness notification is at the discretion of the family.)

h. **Follow-up reporting for ALL contractors**:

1. **Type A or B mishaps, Type C that involves a lost time injury or illness, or High-Visibility Close Calls**: Follow-up report **within 24 hours** after the initial notification through IRIS entry by the contractor designated IRIS representative, or electronic submittal to MSFC Industrial Safety Branch.
2. **Type C that does not involve a lost time injury or illness, or D mishaps, or Low-Visibility Close Calls**: Follow-up report or update **within 6 days** after the initial notification through IRIS entry by the contractor designated IRIS representative, or electronic submittal to MSFC Industrial Safety Branch.
3. **Type A, B, and Close Calls with High-Visibility Type A or B potential Investigation Mishap Board Report**: submitted after completion of investigation. Corrective Action Plan submitted upon Endorsing Official approval.
4. **All Mishaps**: Follow-up Corrective Action Plan/Status 30 days after first mishap.

i. **Safety Concerns, Hazards, and non-reportable mishaps** for contractors working **onsite** shall be reported per MPR 8715.1 and MWI 8715.13.

j. Mishaps and Close Calls that occur at MAF shall be reported within the times specified in sections a thru g to the MSFC S&MA representative located at MAF by calling (504) 257-2526.

k. Follow-up reporting for mishaps and Close Calls reported at MAF shall be reported within the times specified in section h to the MSFC S&MA representative located at MAF.

12. **SUBMISSION FREQUENCY**: Safety Statistics (MSFC Form 4371, IRIS entry, or an equivalent electronic submittal) - By the 10th of each month to MSFC Industrial Safety Branch or for work performed at MAF to the MSFC S&MA representative located at MAF. All Mishaps: Monthly Follow-up Corrective Action Plan/Status until corrective actions implemented and closure received by updating record in IRIS data base (preferred) or electronic submittal to MSFC Industrial Safety Branch or for work performed at MAF to the MSFC S&MA representative located at MAF.

13. **REMARKS**:

14. **INTERRELATIONSHIP**: DRD 1390SA-001, *Safety, Health, and Environmental (SHE) Plan*. PWS paragraph 2.1.7

15. **DATA PREPARATION INFORMATION:**

15.1 **SCOPE**: For the government to be notified by the contractor of all contractor mishaps, close calls, and serious non-occupational injuries or illnesses as required in NPR 8621.1 and MWI 8621.1.

15.2 **APPLICABLE DOCUMENTS**:

NPR 8621.1	*NASA Procedural Requirements for Mishap and Close Call Reporting, Investigating, and Recordkeeping*
MPR 8715.1	*Marshall Safety, Health, and Environmental (SHE) Program*
MWI 8621.1	*Mishap and Close Call Reporting and Investigation Program*
MWI 8715.13	*Safety Concerns Reporting System (SCRS)*

15.3 **CONTENTS**: Initial and follow-up mishap reports shall contain all information required by NPR 8621.1 and MWI 8621.1. Mishap and Safety Statistics Reports shall contain the information listed in 11.a.2 and on the MSFC Form 4371.

15. **DATA PREPARATION INFORMATION (CONTINUED)**:

15.4 **FORMAT**: The following formats or electronic equivalent shall be submitted:

a. MSFC Form 4371, "MSFC Contractor Accident and Safety Statistics" or an equivalent electronic notification system that provides all necessary information listed in 11.a.2.
b. Mishap Investigation Board Report using the format provided in NPR 8621.1.
c. Additional Information Submittal per MWI 8621.1.

15.5 **MAINTENANCE**: None required

15.6 **DEFINITIONS**: NASA Mishap. An unplanned event that results in at least one of the following:

a. Injury to non-NASA personnel, caused by NASA operations.
b. Damage to public or private property (including foreign property), caused by NASA operations or NASA-funded development or research projects.
c. Occupational injury or occupational illness to NASA personnel.
d. NASA mission failure before the scheduled completion of the planned primary mission.
e. Destruction of, or damage to, NASA property except for a malfunction or failure of component parts that are normally subject to fair wear and tear and have a fixed useful life that is less than the fixed useful life of the complete system or unit of equipment, provided that the following are true: 1) there was adequate preventative maintenance; and 2) the malfunction or failure was the only damage and the sole action is to replace or repair that component.

Close Call. An event in which there is no injury or only minor injury requiring first aid and/or no equipment/ property damage or minor equipment/property damage (less than $1000), but which possesses a potential to cause a mishap.

High Visibility (Mishaps or Close Calls). Those particular mishaps or close calls, regardless of the amount of property damage or personnel injury, that the Administrator, Chief/OSMA, CD, AA/OIA, or the Center SMA director judges to possess a high degree of programmatic impact or public, media, or political interest including, but not limited to, mishaps and close calls that impact flight hardware, flight software, or completion of critical mission milestones.

Type A Mishap. A mishap resulting in one or more of the following: (1) an occupational injury or illness resulting in a fatality, a permanent total disability, or the hospitalization for inpatient care of 3 or more people within 30 workdays of the mishap; (2) a total direct cost of mission failure and property damage of $2 million or more; (3) a crewed aircraft hull loss; (4) an occurrence of an unexpected aircraft departure from controlled flight (except high performance jet/test aircraft such as F-15, F-16, F/A-18, T-38, OV-10, and T-34, when engaged in flight test activities).

Type B Mishap. A mishap that caused an occupational injury or illness that resulted in a permanent partial disability, the hospitalization for inpatient care of 1-2 people within 30 workdays of the mishap, or a total direct cost of mission failure and property damage of at least $500,000 but less than $2,000,000.

Type C Mishap. A mishap resulting in a nonfatal occupational injury or illness that caused any days away from work, restricted duty, or transfer to another job beyond the day or shift on which it occurred, or a total direct cost of mission failure and property damage of at least $50,000 but less than $500,000.

Type D Mishap. A mishap that caused any nonfatal OSHA recordable occupational injury and/or illness that does not meet the definition of a Type C mishap, or a total direct cost of mission failure and property damage of at least $1,000 but less than $50,000.

Off-site. Location or facility **not** owned or controlled by MSFC.

On-site. Location or facility owned or controlled by MSFC.

ATTACHMENT J-3

SURVEILLANCE AND FEE EVALUATION PLAN

The Contractor's performance for ESSSA, as set forth in Attachment J-1, *Performance Work Statement (PWS),* and Section B, will be evaluated using this *Surveillance and Fee Evaluation Plan*. The evaluation criteria and fee structure are outlined below. In accordance with Clause B.5, *Evaluation of Fee Deductions,* this is the implementation of the FAR Clause 52.216-8, *Fixed Fee*. The Government will evaluate the Contractor's fee deduction every six (6) month period.

1.0 Evaluation Criteria. This contract is performance based and utilizes various methods to calculate the fee deduction based on defined acceptable quality levels for performance. The *Contractor Self-Assessment Report* (DRD 1390MA-006), *Financial Management Report (533M)* (DRD 1390MA-007), *Task Order Activity Reports* (DRD 1390MA-005), *Weekly Contract Status Briefing* (DRD 1390MA-009) and the *Quality Performance Quarterly Survey* (Attachment J-4) will be used in the evaluation. The *Quality Performance Quarterly Survey* will be timed to provide input to the mid-term evaluation and fee deduction calculation. Problems with services will be identified through Government analysis and assessment and the *Contractor Self Assessment Report* (DRD 1390MA-006).

2.0 Fee Deduction. The fee deduction, if required, will be weighted and distributed as shown in the following paragraphs. Due to the dynamic Center commitments and changing priorities, the Government may issue a bilateral contract modification to revise this *Surveillance and Fee Evaluation Plan* and also the *Quality Performance Quarterly Survey* (Attachment J-4) prior to the start of any 6 month evaluation period. The Government will conduct the customer survey and determine the overall fee deduction. For any rating of Satisfactory or less, the Contractor shall deliver a *Corrective Action Plan* to the CO/COTR.

2.1 Components of Fee Deduction

The fee deduction has five components. The components are Quality Performance, Task Order Estimating, Timeliness, Small Business, and Time to Fill Vacancies. The components, standards of performance, surveillance methods and weight/deduction amounts are summarized in Attachment J-5*, Performance Standards*, and described below in further detail.

NOTE: The percentage of deduction amount is based on the adjective ratings listed in Attachment J-5, *Performance Standards.* The Offeror is to propose percentages to go with adjective ratings to replace the To Be Proposed (TBP) in Attachment J-5.

2.2 Quality Performance Quarterly Survey

(a) The *Quality Performance Quarterly Survey*, Attachment J-4, will be conducted by the Government every three (3) months. The 1st and 3rd quarterly survey of the performance year will be used to inform the Contractor of the Government Customer's thoughts on the Contractor's quality performance for the respective quarters. The 2nd and 4th survey of the performance year will cover the 6 month period and will be used in the fee deduction calculation. The results, including comments, from the survey will be provided to the Contractor.

(b) Quality Performance Fee Deduction. The Quality Performance portion of the fee is worth 40% of the overall fee and is established from the *Quality Performance Quarterly Survey*, Attachment J-4. The survey will be given to the sub-element initiators. In addition, the Department, Laboratory, or Office Managers (referred to as department in the formula below) that have tasks within their organization that have a combined incurred cost of $500,000 or greater will also be surveyed. A weighting formula will be applied to the department surveys based on each department's percentage of total incurred cost for all tasks surveyed by departments in the given quarter or 6 month period. The quality performance score will be determined by using the following formula:

Quality Performance Score = 0.5 * [**SIS** / **N** + sum of all (**DS** * **DC**) / **SDC**]

Where: **SIS** is the sum of sub-element initiator survey scores
N is the number of completed sub-element initiator surveys
DS is an individual department survey score
DC is an individual department's sub-element incurred costs during the survey's quarter
SDC is the sum of all individual department's sub-element incurred costs, during the survey's quarter, for those departments that completed a survey

Once the numerical score is calculated the following table is used to determine the Adjective Score.

Criteria	Adjective Score	Deduction from 40%
≥4.50	Excellent	0%
4.00 - 4.49	Very Good	See Attachment J-5
3.75 - 3.99	Satisfactory	See Attachment J-5
3.74 - 3.00	Marginal	See Attachment J-5
≦2.99	Unsatisfactory	See Attachment J-5

Note: It should be noted from Attachment J-5 that all of the deductions are TBP with the exception of the Excellent Score.

(c) Quality Performance Fee Deduction Example.

Task/Sub-element	Sub-element Quality Performance Score	Incurred Cost of the Sub-element during the survey's quarter, $	Department Quality Performance Score
1-1	4.5	250,000	4.2
1-2	4.0	300,000	
2-1	3.1	100,000	
2-2	4.8	300,000	3.0
2-3	2.5	400,000	
3-1	4.7	75,000	N/A
4-1	4.3	625,000	4.3

(1) Sum of Sub-element Initiator Score is the addition of all of the sub-element total scores from the sub-element initiators. For the example above:

(i) The sum of sub-element initiator survey scores is 4.5+4.0+3.1+4.8+2.5+4.7+4.3 = 27.9

(ii) Number of completed sub-element initiator surveys is 7

(iii) Sub-element initiators score component is 27.9/7=3.99

(iv) Sum of the individual department survey score * individual department's sub-element incurred costs during the survey's quarter for the example above is:
($650,000*4.2)+($700,000*3.0)+($625,000*4.3)=7,517,500

(v) Divide the above number by the sum of all individual department's sub-element incurred costs, during the survey's quarter, for those departments that completed a survey for the example above is 7,517,500/(650,000+700,000+625,000)= 7,517,500/1,975,000=3.81

(vi) So the total Quality Performance Score for the example given is 0.5*(3.99+3.81)=3.90

(vii) All numbers will be rounded up to two decimal places. A minimum of 80% of the surveys will be completed when determining a Quality Performance Score. For the above example, there were 7 sub-element and 3 Department potential surveys. 100% of the surveys were completed.

(viii) Example Numerical Score conversion to Adjective Score

Criteria	Adjective Score	Deduction from 40%
≥ 4.50	Excellent	0%
4.00 - 4.49	Very Good	10%
3.75 - 3.99	Satisfactory	20%
3.74 - 3.00	Marginal	40%
≤2.99	Unsatisfactory	50%

(ix) For the example cited above, using the Government provided percentages in J-5, and with a total score of 3.90, the adjective rating would be Satisfactory. This adjective rating would result in a 20% reduction in the overall 40% of the fee or a 8% reduction in the overall fee.

2.3 Task Order Estimating

The Task Order Estimating portion of the fee is worth 25% of the overall fee and is based on information from the *Financial Management Report (533M)*, DRD 1390MA-007 and the *Contractor Self-Assessment Report*, DRD 1390MA-006. The criteria to be used for the evaluation and the associated adjective score and deduction percentage are as follows:

Criteria	Adjective Score	Deduction from 25%
At least 98% of all active sub-elements* during an evaluation period have a variation that is no more than 10% of the sub-element task plan cost per month for the 6 month evaluation period	Excellent	0%
92% of all active sub-elements* during an evaluation period have a variation that is no more than 10% of the sub-element task plan cost per month for the 6 month evaluation period	Very Good	See Attachment J-5
85% of all active sub-elements* during an evaluation period have a variation that is no more than 10% of the sub-element task plan cost per month for the 6 month evaluation period	Satisfactory	See Attachment J-5
75% of all active sub-elements* during an evaluation period have a variation that is no more than 10% of the sub-element task plan cost per month for the 6 month evaluation period	Marginal	See Attachment J-5
Less than 75% of the sub-elements have a variation that is no more than 10% for one month OR 5% of the sub-elements have a variation greater than 10% for at least 4 consecutive months within the 6 month evaluation period	Unsatisfactory	See Attachment J-5

Note: * If there are more than 100 open sub-elements, use the number of the open sub-elements instead of the percent of sub-elements

All decimal numbers for percentage calculations will be rounded up to the next integer.

2.4 Timeliness

The Timeliness portion of the fee is worth 15% of the overall fee and is based on information in the *Task Order Activity Reports*, DRD 1390MA-005 and the *Contractor Self-Assessment Report*, DRD 1390MA-006. The tracked milestones come from the milestones in the task order/sub-element plans and the contract deliverables and are tracked in the monthly activity reports. Sub-element milestones can only be changed for Government changes in scope, failure of the Government to provide Government furnished data, equipment, etc. (assuming that the need for the change has been documented in the activities report), schedule changes agreed to by the Government to meet other Center priorities within MSFC and replans at the beginning of the fee period agreed to by the Government. The criteria to be used for the evaluation and the associated adjective score and deduction percentage are as follows:

Criteria	Adjective Score	Deductions from 15%
Meets 100% of the total contract planned milestones on time	Excellent	0
Meets ≥ 95% and < 100% of the total contract planned milestones on time	Very Good	See Attachment J-5
Meets ≥ 90% and < 95% of the total contract planned milestones on time	Satisfactory	See Attachment J-5
Meets ≥ 80% and < 90% of the total contract planned milestones	Marginal	See Attachment J-5
Meets < 80% of the total contract planned milestones on time	Unsatisfactory	See Attachment J-5

2.5 Small Business

The Small Business portion of the fee is worth 15% of the overall fee deduction and is based on information in the *Contractor Self-Assessment Report*, DRD 1390MA-006, *Weekly Contract Status Briefing*, DRD 1390MA-009, and *Small Business Subcontracting Plan,* Attachment J-6. The criteria to be used for the evaluation and the associated adjective score and deduction percentage are as follows:

Criteria	Adjective Score	Deductions from 15%
Meets or exceeds all negotiated subcontractor % goals as applied to contract value	Excellent	0
Meets or exceeds total Small Business (SB) goal but does not meet one of the lower level goals	Very Good	See Attachment J-5
Meets or exceeds total SB goal but does not meet two of the lower level goals	Satisfactory	See Attachment J-5
Meets or exceeds total SB goals but does not meet three of the lower level goals	Marginal	See Attachment J-5
Does not meet SB goal or does not meet > 3 of the lower level goals.	Unsatisfactory	See Attachment J-5

2.6 Time to Fill Vacancies

The Time to Fill Vacancies is 5% of the overall fee and is based on information in the *Task Order Activity Reports,* DRD 1390MA-005, the *Contractor Self-Assessment Report*, DRD 1390MA-006, and *Weekly Contract Status Briefing,* DRD 1390MA-009. "Filling a vacancy" means the employee has been officially hired and is working an MSFC task within three (3) weeks. The criteria to be used for the evaluation and the associated adjective score and deduction percentage are as follows:

Criteria	Adjective Score	Deductions from 5%
100% of vacancies filled within 3 weeks	Excellent	0
100% of vacancies filled in an average of ≤ 3 weeks and none longer than 6 weeks	Very Good	See Attachment J-5
100% of vacancies filled in an average of ≤ 6 weeks and none longer than 9 weeks	Satisfactory	See Attachment J-5
100% of vacancies filled in an average of ≤ 9 weeks and none longer than 12 weeks	Marginal	See Attachment J-5
100% of vacancies filled in an average greater than 9 weeks or one more than 12 weeks	Unsatisfactory	See Attachment J-5

2.7 Additional Potential Fee Deductions

(a) Additionally, a 50% fee deduction of total fixed fee may be applied for any period when there is a major breach of safety or security. The maximum total fee deduction, however, will be limited to 80% of the total fixed fee.

(b) A major breach of safety for fee evaluation consists of an incident resulting in a fatality; or in damage to equipment or property equal to or greater than $2M.

(c) A major breach of security for fee evaluation includes but is not limited to, any of the following: intentional or substantial compromise of classified information; or illegal technology transfer; or workplace violence resulting in personal harm or injury, or criminal conviction of a Contractor employee; or sabotage; or intentional or substantial compromise or denial of information technology services. This includes damage, loss or theft greater than $500K to the Government.

2.8 Example of Fee Deduction calculation:

(a) Total Fee Deduction = (0.40 x Quality Performance Score) + (0.25 x Sub-element Cost Estimate Score) + (0.15 x Timely Submission Score) + (0.15 x Small Business Goals Score) + (0.05 x Time to Fill Vacancies Score)

(b) If all scores are at the Excellent Rating:
Total Fee Deduction = (0.40x 0) + (0.25 x 0) + (0.15 x 0) + (0.15 x 0) + (0.05 x 0)
Total Fee Deduction= 0

(c) If all scores are at the Unsatisfactory Rating using the Government Unsatisfactory Percentages in J-5:
Total Fee Deduction = (0.40 x 0.5) + (0.25 x 0.50) + (0.15 x 0.75) + (0.15 x 0.5) + (0.05 x 0.75)
Total Fee Deduction= 0.55 or 55%

(d) If the total potential fee for the 6-month period is $100,000, the Contractor earns $100,000 for all Excellent Ratings and $100,000-$55,000 = $ 45,000 for all Unsatisfactory Ratings.

ATTACHMENT J-4

QUALITY PERFORMANCE QUARTERLY SURVEY

ENGINEERING AND SCIENCE SERVICES AND SKILLS AUGMENTATION (ESSSA)

NOTES:
(1) This survey should be completed by Task Order (TO) Sub-element initiators and Department/Office/Laboratory Heads (referred to as "Department Head" throughout this survey). Task Order owners should not complete the survey.

(2) If the Department Head is filling out this survey, leave the first four items blank.

(3) The Department Head is filling out one survey to cover all Task Orders managed within their organization.

TASK ORDER (TO) NO.: _____

TO TITLE: _____

SUB-ELEMENT NO.:_____

SUB-ELEMENT TITLE: _____

SURVEY RESPONDENT:_____

TO SUB-ELEMENT INITIATOR/DEPT HEAD: _____

ORGANIZATION CODE: _____

PERIOD OF PERFORMANCE:_____

DATE: _____

RESPONSE DUE DATE: _____

(a) The goal of __(Company Name)__ is to provide service **excellence** in accomplishing the mission of the Engineering and Science Services and Skills Augmentation (ESSSA) Contract. As such, this quarterly survey/evaluation serves as: 1) a working tool to provide valuable feedback to the Contractor program management on performance; 2) a mechanism for determining the fee deduction, if required, for Quality Performance; and 3) an input to the Contracting Officer Technical Representative's (COTR) evaluation for the Contractor Performance Assessment Reporting System (CPARS).

(b) In completing this survey, it is important to understand that the ESSSA Contract is a performance-based service contract and is not a personal service contract. Therefore, this customer evaluation should be based on __(Company Name)__ service to the sub-element as a whole and not representative of an employee's performance. Use the comments section for recognition of superior performance and innovation. The survey respondent is required to provide rationale for all ratings in the comments section.

(c) Please use the on-line web tool at (URL to be inserted) to complete the survey, including comments, on or before the due date set forth above. This survey will be provided to the ESSSA CO, COTR, and the Contractor Program Management.

(d) NON-RESPONSE: Failure to respond by the "Response Due Date" above will result in the sub-element performance not being accounted for in the overall calculation. Supervisors are encouraged to consider Survey Respondent's participation during their performance appraisal.

NOTE: Comments are necessary to provide the CO/COTR meaningful information for use in assessing the survey results, and in discussions with the Contractor.

(e) The following table provides definitions and ranges of performance to be used in this survey for the Task Order or sub-element being assessed.

Adjective Rating	Numeric Rating	Narrative Description of Performance
Excellent	5	Performance was fully responsive to requirements, timely and effective and with few minor problems for which corrective actions taken by the Contractor were highly effective.
Very Good	4	Performance was fully responsive to requirements, timely and effective, with some minor problems for which corrective actions taken by the Contractor was effective and had little adverse effect on overall performance.
Satisfactory	3	Performance met contractual requirements, with reportable deficiencies for which corrective actions taken by the Contractor appear or were satisfactory.
Marginal	2	Performance did not meet some requirements, with reportable deficiencies, for which the Contractor has not yet identified corrective actions or for which the Contractor's proposed actions appear only marginally effective or were not fully implemented.
Unsatisfactory	1	Performance did not meet requirements; inadequate results; reportable deficiencies with substantial effect on overall performance. The Contractor's proposed actions appear or were ineffective.
N/A	-	Does not apply – will not be averaged into the score

(f) Survey Instructions:

(1) The Government expects the Contractor to provide **Excellent** service. Anything less than **Excellent** will result in a fee deduction.

(2) Based on experience during this performance period, rate the following metrics by placing an "X" in the appropriate adjective rating best representing the Contractor's performance on the Task Order or sub-element.

(3) Written comments, suggestions, and concerns shall be provided in the table at the end of the survey. It is particularly important that comments are included for all ratings.

(4) All ratings from this survey except items marked N/A will be used for fee deduction calculations. The ratings from this survey will be used by the Contracting Officer and Contracting Officer Technical Representative for the CPARS ratings.

(g) The following questions will be used for fee deduction calculations and for CPARS - Evaluation. Both TO Sub-element Initiators and Department Heads (or designated representatives) are required to answer the following questions.

Item	EVALUATION CRITERIA	Excellent	Very Good	Satisfactory	Marginal	Unsatisfactory	N/A
	Quality of Product or Service						
1	Competent employees (have appropriate technical skills and are knowledgeable of task* requirements)						
2	Demonstrates technical excellence by consistently delivering quality products						
3	Oral/written communications (including documentation, reports, presentations) are clear, concise, well organized, accurate, and effectively presented						
4	Personnel comply with MSFC Safety Policies						
5	Personnel comply with MSFC Security Policies and Procedures						
6	Contractor labor instability has not negatively impacted products or services						
	Cost Control						
7	Initial estimate of resources to successfully deliver/complete task/sub-element product(s) does not require modification (when no changes to requirements, deliverables, schedules or priorities are requested by the Government). (To highlight the importance of the development of good estimates this question is a yes or no question. Use Excellent for Yes, and Unsatisfactory for No).						
	Business Relations						
8	Task management responds to customer needs in a timely manner						
9	Demonstrates a proactive approach to keep customer informed and to provide timely solutions to problems, and concerns affecting the task						
10	Demonstrates flexibility; easily adapts to change (e.g., changes in priority, task content, reassignment, organization)						
11	Effective, cooperative, and professional interfacing, collaboration and teaming with others						
	Schedule						
12	Task products are consistently completed and/or delivered as planned						
13	Typically releases an acceptable Task Order Plan (or Task Order Change Plan) (within 5 working days of receiving a funded NASA Task Order Request (or Task Order Change Request)						
14	Typically provides technical capabilities to begin task execution (within three (3) weeks of receiving a funded NASA Task Order (or revised Task Order)						

* “Task” refers to Task Order sub-element(s) being evaluated by this survey.

(h) The following question will not be a part of fee deduction calculation but will be used in the annual performance evaluation for the CPARS. CPARS uses an Exceptional rating which is defined as “Performance meets contractual requirements and ***exceeds*** many to the Government’s benefit.” It is required that any reviewer that gives a rating of Exceptional also includes supporting narrative comments to support the Exceptional rating.

Item	EVALUATION CRITERIA	Exceptional	Very Good	Satisfactory	Marginal	Unsatisfactory	N/A
	Exceptional Rating						
15	Develops innovations or exceeds requirements to realize substantial improvements in cost/schedule/quality/business relations of product deliverables.						

(i) The following questions are only answered by the Department/Office/Laboratory Head (or designated representatives).

Item	EVALUATION CRITERIA	Excellent	Very Good	Satisfactory	Marginal	Unsatisfactory	N/A
	Key Personnel						
16	Key Personnel (i.e. program management) are responsive to customer needs.						
17	Key Personnel (i.e. program management) demonstrate effective and efficient program control and authority.						
18	Funds obligated to task sub-elements are costed (invoice submitted for payment) by the next monthly report (1390MA-007). (all tasks = Excellent, 90-99% of tasks = Very Good, 80-89% = Good, 70-79% = Satisfactory, below 70% is unsatisfactory)						

(j) NARRATIVE SUMMARY (Use this section to provide the rationale for the ratings in the previous table.) The narrative information will be used in both the fee deduction and CPARS evaluation.

Item	Comments
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	

Item	Comments
12	
13	
14	
15	
16	
17	
18	

The following is an example of a completed survey and how a score will be determined.

TASK ORDER (TO) NO.: ____0001_____

TO TITLE: _*Improved Understanding*_

SUB-ELEMENT NO.:_____001_____

SUB-ELEMENT TITLE: _Quality Performance Example_

SURVEY RESPONDENT: _____Susie S. Initiator_____

TO SUB-ELEMENT INITIATOR/DEPT HEAD: _____Susie S. Initiator_____

ORGANIZATION CODE: _____BA30_____

PERIOD OF PERFORMANCE: __March 1, 2013 thru August 31, 2013__

DATE: _____September 15, 2013_____

RESPONSE DUE DATE: _____September 20, 2013_____

EXAMPLE OF A QUALITY PERFORMANCE QUARTERLY SURVEY
ENGINEERING AND SCIENCE SERVICES AND SKILLS AUGMENTATION (ESSSA)

Item	EVALUATION CRITERIA	Excellent	Very Good	Satisfactory	Marginal	Unsatisfactory	N/A
	Quality of Product or Service						
1	Competent employees (have appropriate technical skills and are knowledgeable of task* requirements)		X				
2	Demonstrates technical excellence by consistently delivering quality products	X					
3	Oral/written communications (including documentation, reports, presentations) are clear, concise, well organized, accurate, and effectively presented		X				
4	Personnel comply with MSFC Safety Policies	X					
5	Personnel comply with MSFC Security Policies and Procedures	X					
6	Contractor labor instability has not negatively impacted products or services	X					
	Cost Control						
7	Initial estimate of resources to successfully deliver/complete task/sub-element product(s) does not require modification (when no changes to requirements, deliverables, schedules or priorities are requested by the Government). (To highlight the importance of the development of good estimates this question is a yes or no question. Use Excellent for Yes, and Unsatisfactory for No).					X	
	Business Relations						
8	Task management responds to customer needs in a timely manner	X					
9	Demonstrates a proactive approach to keep customer informed and to provide timely solutions to problems, and concerns affecting the task		X				
10	Demonstrates flexibility; easily adapts to change (e.g., changes in priority, task content, reassignment, organization)	X					
11	Effective, cooperative, and professional interfacing, collaboration and teaming with others	X					
	Schedule						
12	Task products are consistently completed and/or delivered as planned		X				
13	Typically releases an acceptable Task Order Plan (or Task Order Change Plan) (within 5 working days of receiving a funded NASA Task Order Request (or Task Order Change Request)	X					
14	Typically provides technical capabilities to begin task execution (within three (3) weeks of receiving a funded NASA Task Order (or revised Task Order)	X					

* “Task” refers to Task Order sub-element being evaluated by this survey.

Item	EVALUATION CRITERIA	Exceptional	Very Good	Satisfactory	Marginal	Unsatisfactory	N/A
	Exceptional Rating						
15	Develops innovations or exceeds requirements to realize substantial improvements in cost/schedule/quality/business relations of product deliverables.						X

Item	EVALUATION CRITERIA	Excellent	Very Good	Satisfactory	Marginal	Unsatisfactory	N/A
	Key Personnel						
16	Key Personnel (i.e. program management) are responsive to customer needs.						X
17	Key Personnel (i.e. program management) demonstrate effective and efficient program control and authority.						X
18	Funds obligated to task sub-elements are costed (invoice submitted for payment) by the next monthly report (1390MA-007. (all tasks = Excellent, 90-99% of tasks = Very Good, 80-89% = Good, 70-79% = Satisfactory, below 70% is unsatisfactory)						X

Scoring of the Example Task:

There are 14 questions filled out in this survey. The number of questions rated with each adjective rating is shown below:

Excellent: 9
Very Good: 4
Satisfactory: 0
Marginal: 0
Unsatisfactory: 1

Score = {sum [number of answers with a specific adjective score *numerical value of the score]} / number of questions answered with a score of Excellent to Unsatisfactory.

Score = {(number of Excellents*5) + (number of Very Goods *4) + (number of Satisfactories*3) + (number of Marginals*2) + (number of Unsatisfactories*1)} / number of questions answered without a N/A

Score = {(9*5) + (4*4) + (0*3) + (0*2) + (1*1)} / 14 = 4.43

4.43 is the reported score for this sub-element for the 6-month evaluation period that will be used in the fee deduction determination.

ATTACHMENT J-5

PERFORMANCE STANDARDS

The fee deduction has five components. The components are Quality Performance, Task Order Estimating, Timeliness, Small Business, and Time to Fill Vacancies. The components, standards of performance, surveillance methods and weight/deduction amounts are given below. Lower level details and the overall process are described in Attachment J-3, *Surveillance and Fee Evaluation Plan*.

Contractor Requirement	Standards of Performance	Acceptable Quality Level (Metrics)	Surveillance Method	Weight/Deduction Amount
Quality Performance	Overall competence and availability of Contractor personnel, quality of services/products, collaboration and proactive communications; recognition of and improvement in critical problem areas	EXCELLENT Adjective rating on semi-annual basis	*Quality Performance Quarterly Survey* (Reference Attachment J-4)	40% of total fee Excellent 0% Very Good 15% (not less than 10%) Satisfactory 35% (not less than 20%) Marginal 60% (not less than 40%) Unsatisfactory 100% (not less than 50%)
Task Order Estimating	Overall ability of the Contractor to estimate cost	EXCELLENT Adjective rating on semi-annual basis	*Contractor Self-Assessment Report* (DRD 1390MA-006)	25% of total fee Excellent 0% Very Good 10% Satisfactory 25% Marginal 60% Unsatisfactory 100% (not less than 50%)
Timeliness	Overall timeliness of DRDs and other deliverables	EXCELLENT Adjective rating on semi-annual basis	*Task Order Activity Reports* (DRD 1390MA-005) and *Contractor Self-Assessment Report* (DRD 1390MA-006)	15% of total fee Excellent 0% Very Good 10% Satisfactory 25% Marginal 60% Unsatisfactory 100% (not less than 75%)

Contractor Requirement	Standards of Performance	Acceptable Quality Level (Metrics)	Surveillance Method	Weight/Deduction Amount
Small Business Goals	*Ability of contractor to meet established goals defined in Small Business Subcontracting Plan, Attachment J-6*	*EXCELLENT* *Adjective rating on semi-annual basis*	*Contractor Self-Assessment Report (DRD 1390MA-006), Weekly Contract Status Briefing (DRD 1390MA-009), and Small Business Subcontracting Plan, Attachment J-6*	*15% of total fee* *Excellent 0%* *Very Good 20%* *Satisfactory 35%* *Marginal 60%* *Unsatisfactory 100% (not less than 50%)*
Time to Fill Vacancies	*Ability of the contractor to promptly meet Government requirements*	*EXCELLENT* *Adjective rating on semi-annual basis*	*Contractor Self-Assessment Report (DRD 1390MA- 006) and Weekly Contract Status Briefing (DRD 1390MA-009)*	*5% of total fee* *Excellent 0%* *Very Good 10%* *Satisfactory 20%* *Marginal 60%* *Unsatisfactory 100% (not less than 75%)*

Pages 155 through 161 redacted for the following reasons:
- -
(b)(4), (b)(4)

ATTACHMENT J-7

INSTALLATION-PROVIDED PROPERTY AND SERVICES

In addition to the items specified in Clause G.6, *Installation-Accountable Government Property*, the Government will provide property, equipment, and services as available and necessary for performance pursuant to the contract Sections. The following property, equipment, and services will be available for onsite effort on a no-charge for use basis. This list may or may not be applicable for use in support of this contract. Additionally, this list may not be all inclusive and may change depending on the Government's assessment of need.

(1) Work Space
Adequate work space and appropriate office furniture including technical work rooms, conference rooms, and storage areas

(2) Desktop Services
Computer workstations (generally one seat license per person under Agency Consolidated End-User Services (ACES)) and associated maintenance (general and specialized Workstations), networks, servers and supporting infrastructure

(3) Telephones
Telephones for official use

(4) Reproduction and Printing
Reproduction services for black and white large engineering prints, copying machines, plotters, scanners and printers

(5) Software
Standard application software and specialized Commercial-Off-The-Shelf (COTS) software (ANSYS, Pro-E, etc.) as required to meet specific MSFC program/project objectives

(6) Supplies, Materials, and Spare Parts
Standard supplies and materials available to Contractors from Government Stores Stock (MSFC Supply - Federal Groups 13 through 99)

(7) Custodial and Maintenance Services
Custodial and Maintenance services and supplies for the Government-provided facilities

(8) Refuse Collection
Refuse collection

(9) Mail Service
On-post mail service will be limited to a single on-site location

(10) Safety Equipment
Special safety equipment provided; however, personal safety items, i.e., gloves, goggles, hats, coveralls, shoes, etc., will not be Government-furnished

(11) Test and Laboratory Equipment
Use of equipment, in test and laboratory facilities, required to provide requested services

(12) Intellectual Property
The following intellectual property developed under the previous Science and Engineering Service contracts with MSFC (NAS8-37814, NAS8-40836, NAS8-00187, NNM05AB50C):
- Dynamic Memory Management Systems (DMMS)
- Forth Source Code Analysis Tool Set (FSCATS)
- Quick and Unusually Easy Repository Search (QUERYS)
- Source Lines of Code Count (SLOCC)
- Generalized Fluid System Simulation Program (GFSSP)

(13) Security
Base security service

(14) Medical
- Ambulance service
- Physical examinations for certifications as required by NASA/MSFC regulations

(15) Food Service
In addition to normal-hour cafeteria privileges on the MSFC campus, vending machines are available.

(16) Exercise
On post Wellness Center for individuals or corporate fees

***Note*: The Government anticipates no specific requirement for telecommunications devices (e.g., cellular phones, pagers, and personal data assistants) beyond that of managerial/administrative functions for normal business operations, and will not provide such devices.**

ATTACHMENT J-8

APPLICABLE REGULATIONS AND PROCEDURES

In addition to the regulations and procedures identified elsewhere in this contract, the following regulations and procedures, and the latest revision thereto are applicable to the Contractor in performing this contract. This listing is not intended to relieve the Contractor of its responsibility for identification of applicable regulations and procedures and compliance therewith, when performing work for NASA under this contract.

CODE OF FEDERAL REGULATIONS

14 CFR 1221.1	NASA Seal, NASA Insignia, NASA Logotype, NASA Program Identifiers, NASA Flags, and the Agency's Unified Visual Communications System
15 CFR Parts 730-799	Export Administration Regulations (EAR)
22 CFR Parts 120-130	International Traffic in Arms Regulation (ITAR)
29 CFR Part 1910	Department of Labor; Occupational Safety and Health Administration Standards for General Industry
29 CFR Part 1926	Department of Labor; Occupational Safety and Health Administration Standards for Construction Industry
29 CFR Part 4	Classes of Service Employees
29 CFR 541	Policies to Attract and Retain Professional Employees
40 CFR Parts 1-1068	Protection of Environment

OMB CIRCULARS

Circular A-130	Management of Federal Resources

NASA POLICY DIRECTIVES

NASA directives are available from the NASA online directives information system (nodis): http://nodis3.gsfc.nasa.gov/library/main_lib.html

NPD 1440.6	NASA Records Management
NPD 1490.1	NASA Printing, Duplicating, and Copy Management
NPD 1600.2	NASA Security Policy
NPD 2190.1	NASA Export Control Program
NPD 2200.1	Management of NASA Scientific and Technical Information
NPD 2540.1	Personal Use of Government Office Equipment including Information Technology
NPD 2800.1	Managing Information Technology
NPD 2810.1	NASA Information Security Policy
NPD 4200.1	Equipment Management
NPD 4300.1	NASA Personal Property Disposal Policy
NPD 7120.4	NASA Engineering and Program/Project Management Policy
NPD 8800.14	Policy for Real Estate Management
NPD 9250.1	Identifying Capital Assets and Accumulation of Cost

NASA POLICY DIRECTIVES (continued)

NPD 9501.1	NASA Contractor Financial Management Reporting System

NASA PROCEDURAL REQUIREMENTS

NPR 1040.1	NASA Continuity of Operations (COOP) Planning Procedural Requirements
NPR 1441.1	NASA Records Retention Schedules
NPR 1600.1	NASA Security Program Procedural Requirements
NPR 2190.1	NASA Export Control Program
NPR 2200.2	Requirements for Documentation, Approval, and Dissemination of NASA Scientific and Technical Information
NPR 2800.1	Managing Information Technology
NPR 2810.1	Security of Information Technology
NPR 3792.1	Plan for a Drug-Free Workplace
NPR 4100.1	NASA Materials Inventory Management Manual
NPR 4200.1	NASA Equipment Management Procedural Requirements
NPR 4200.2	Equipment Management Manual for Property Custodians
NPR 4300.1	NASA Personal Property Disposal Procedural Requirements
NPR 5100.4	Federal Acquisition Regulation Supplement (NASA/FAR Supplement) [48 CFR 1800-1899] (REVALIDATED 9/16/2008)
NPR 7120.5	NASA Space Flight Program and Project Management Requirements
NPR 7120.7	NASA Information Technology and Institutional Infrastructure Program and Project Management Requirements
NPR 7120.8	NASA Research and Technology Program and Project Management Requirements
NPR 8621.1	NASA Procedural Requirements for Mishap and Close Call Reporting, Investigating, and Recordkeeping
NPR 8715.3	NASA General Safety Program Requirements
NPR 8831.2	Facility Maintenance and Operations Management
NPR 9501.2	NASA Contractor Financial Management Reporting

MARSHALL POLICY DIRECTIVES

MSFC Directories are available from the Directives Master List on the MSFC Integrated Document Library:
https://app1.nis.nasa.gov/directives/component/main?_dmfClientId=1308690560436.

MPD 1040.3	MSFC Emergency Program
MPD 1280.1	Marshall Quality Management System Manual
MPD 1380.1	Release of Information to News and Information Media
MPD 1800.1	MSFC Smoking Policy
MPD 1840.1	MSFC Environmental Health Program
MPD 1840.2	MSFC Hearing Conservation Program
MPD 1840.3	MSFC Respiratory Protection Program
MPD 1860.2	Radiation Safety Program
MPD 2190.1	MSFC Export Control Program

MARSHALL POLICY DIRECTIVES (continued)

MPD 2210.1	Documentation Input and Output of the MSFC Documentation Repository
MPD 2800.1	Management of Information Technology Systems and Services at MSFC
MPD 8500.1	MSFC Environmental Management Policy
MPD 8570.1	MSFC Energy and Water Management Program
MPD 8812.1	MSFC Facility Utilization Policy

MARSHALL PROCEDURAL REQUIREMENTS

MPR 1040.3	MSFC Emergency Plan
MPR 1410.2	Marshall Management Directives System
MPR 1420.1	MSFC Forms Management Program
MPR 1440.2	MSFC Records Management Program
MPR 1490.1	Printing, Reproduction, and Self-Service Copying Services
MPR 1600.1	MSFC Security Procedural Requirements
MPR 1600.2	Prevention of and Response to Threatening Behavior in the Workplace
MPR 1800.1	Bloodborne Pathogens and Biohazardous Materials
MPR 1800.2	MSFC Ergonomics Program
MPR 1800.3	MSFC Sanitation Program
MPR 1810.1	MSFC Occupational Medicine
MPR 1840.1	MSFC Confined Space Entries
MPR 1840.2	MSFC Hazard Communication Program
MPR 1840.3	MSFC Hazardous Chemicals in Laboratories Protection Program
MPR 1840.4	MSFC Asbestos Program
MPR 1860.1	MSFC Radiation Safety Procedural Requirements
MPR 1860.2	Nonionizing Radiation Safety
MPR 2220.1	Scientific and Technical Publications
MPR 2500.1	Marshall Telecommunications and Audio Visual Services
MPR 2800.2	Marshall Information Technology (IT) Services
MPR 3410.1	Training
MPR 4000.2	Property Management
MPR 8500.1	MSFC Environmental Management Program
MPR 8500.2	MSFC Environmental Management System (EMS) Manual
MPR 8715.1	Marshall Safety, Health and Environmental (SHE) Program

MARSHALL WORK INSTRUCTIONS

MWI 1380.1	Handling of Freedom of Information Act Requests
MWI 1500.1	Special Events Coordination
MWI 1520.1	Graphic and Publication Production Services
MWI 1810.1	Automated External Defibrillator (AED) Program
MWI 2210.1	MSFC Documentation Repository Input/Output and Data Management Project Requests
MWI 3410.1	Personnel Certification Program
MWI 4200.1	Equipment Control
MWI 4300.1	Disposal Turn-Ins/Reutilization Screening

MARSHALL WORK INSTRUCTIONS (continued)

MWI 4520.1	Receiving
MWI 5116.1	Evaluation of Contractor Performance Under Contracts with Award Fee Provisions
MWI 7120.2	Data Requirements Identification/Definition
MWI 8540.2	Green Purchasing Program
MWI 8550.1	Waste Management
MWI 8550.2	Storm Water Management
MWI 8550.3	Wastewater Compliance
MWI 8550.4	Air Emissions Compliance
MWI 8550.5	Chemical Management
MWI 8621.1	Mishap and Close Call Reporting and Investigation Program
MWI 8715.1	Electrical Safety Program
MWI 8715.2	Control of Hazardous Energy (Lockout/Tagout) Program
MWI 8715.3	Hazard Identification & Warning System
MWI 8715.4	Personal Protective Equipment (PPE) and Systems
MWI 8715.5	Area/Building Manager Program
MWI 8715.10	Explosives, Propellants, & Pyrotechnics Program
MWI 8715.11	Fire Safety Program
MWI 8715.12	Safety, Health, and Environmental-Finding Tracking System (SHEtrak)
MWI 8715.13	Safety Concerns Reporting System (SCRS)
MWI 8715.15	Ground Operations Safety Assessment Program
MWI 8715.16	Supervisor Safety, Health and Environmental (SHE) Visits
MWI 8715.17	Hazardous Operations Readiness Review Program

OTHER DOCUMENTS:

NHB 1620.3	NASA Security Handbook
ANSI Standards	All ANSI Standards applicable to the scope of this contract
NFPA Standards	National Fire Codes
NASA-STD-8719.11	Safety Standard for Fire Protection
Executive Order 13423	Strengthening Federal Environmental, Energy, and Transportation Management

OTHER

General Records Schedules are available from the National Archives and Records Administration home page, “Records Management – Publications” at http://www.nasa.gov/records/index/html.

Pages 168 through 169 redacted for the following reasons:
- -
(b)(4)

LABOR CATEGORY POSITION DESCRIPTIONS

Descriptions for the labor categories identified in Attachment J-9 are provided below. Scientist and Engineer labor descriptions have been combined for this RFP. Further information on the Engineer and Scientist categories can be found on the internet at http://bls.gov/ncs/ocs/ocsjobde.htm. An Integral Technician has been defined for this RFP as an individual whose purpose is to perform technician tasks under the direction of an engineer assigned to a specific task order supporting technology or unique process/product development. Further information on the Technician categories can be found at the Service Contract Act Directory of Occupations, http://www.dol.gov/whd/regs/compliance/wage/p29000.html.

SME-4 Subject Matter Expert

The Subject Matter Expert, SME-4 is reserved for the highly specialized, one-of-a-kind expert that doesn't fit in the other three SME categories. The SME-4 serves as an expert for an engineering/scientific discipline and/or a system and/or program segment and is an internationally recognized authority. The SME-4 shall provide professional, consultation, technical and specialty skill services as needed to resolve unprecedented and/or complex problems pertaining to design, development, analysis, integration, evaluation, testing, and verification of systems, subsystems, and components. The SME-4 initiates and maintains extensive contacts with key engineers/scientists and officials of other organizations and companies, requiring skill in persuasion and negotiation of critical issues.

Typical position titles include:
Consultant
Senior Analyst
Subject Matter Expert

Typically, educational requirements are the equivalent of a Ph.D., with minimum of 25 years experience, a Masters with at least 30 years experience, or BS with at least 35 years experience.

SME-3 Subject Matter Expert

A Subject Matter Expert SME-3 refers to an individual that serves as an expert for an engineering/scientific discipline and/or a system and/or program segment and is recognized as a nationally recognized authority. The SME-3 shall provide professional, consultation, technical and specialty skill services as needed to resolve unprecedented and/or complex problems pertaining to design, development, analysis, integration, evaluation, testing, and verification of systems, subsystems, and components. The SME-3 initiates and maintains extensive contacts with key engineers/scientists and officials of other organizations and companies, requiring skill in persuasion and negotiation of critical issues.

Typical position titles include:
Consultant
Senior Analyst
Subject Matter Expert

Typically, educational requirements are the equivalent of a Ph.D., with minimum of 20 years experience, a Masters with at least 25 years experience, or BS with at least 30 years experience.

SME-2 Subject Matter Expert

A Subject Matter Expert, SME-2 refers to an individual that serves as an expert for an engineering/scientific discipline and/or a system and/or program segment of whom makes decisions and recommendations. The SME-2 is recognized as an authoritative expert that has significant impact within their respective engineering/scientific field. The SME-2 provides professional, technical and specialty skill services as needed to resolve complex problems pertaining to design, development, analysis, integration, evaluation, testing, and verification of systems, subsystems, and components. The SME-2 initiates and maintains extensive contacts with key engineers/scientists and officials of other organizations and companies, requiring skill in persuasion and negotiation of critical issues.

Typical position titles include:
Consultant
Senior Analyst
Subject Matter Expert

Typically, educational requirements are the equivalent of a Ph.D., with a minimum 12 years of experience, Masters with at least 15 years experience, or BS with at least 20 years experience.

SME-1 Subject Matter Expert

A Subject Matter Expert, SME-1 refers to an individual that serves as an expert for an engineering/scientific discipline for a program component, subsystem, or system and makes decisions and recommendations. SME-1 has an impact on engineering/scientific activities within their respective engineering/scientific field. The SME-1 provides professional, technical and specialty skill services as needed to resolve complex problems pertaining to design, development, analysis, integration, evaluation, testing, and verification of systems, subsystems, and components. The SME-1 initiates and maintains extensive contacts with key engineers/scientists and officials of other organizations and companies, requiring skill in persuasion and negotiation of critical issues.

Typical position titles include:
Consultant
Senior Analyst
Subject Matter Expert

Typically, educational requirements are the equivalent of a Ph.D. with a minimum of 10 years of experience, a Masters with at least 12 years experience, or a BS with at least 15 years experience.

ES-9 Engineer/Scientist

The ES-9 classification refers to an individual that manages a large and complex program with multiple engineering disciplines that requires staff and resources of sizable magnitude. This individual serves as communication or focal point of the program being managed. This individual evaluates performance of project managers assigned to the program. This individual is responsible for the overall performance of a program/project to include cost, schedule, technical performance and subcontractor's performance. ES-9 Engineer/Scientist shall provide professional, consultation, technical and engineering skill services as needed to resolve unprecedented/complex problems pertaining to design, development, analysis, integration, evaluation, testing, and verification of systems, subsystems, and components.

Typical position titles include:

Manager
Engineering Manager
Research Manager
Science Manager
Senior Supervisor
Chief Engineer
Chief Scientist
Principal Engineer
Principal Scientist

Typically, educational requirements are the equivalent of a Ph.D., with minimum of 12 years experience, a Masters with at least 15 years experience, or BS with at least 20 years experience.

ES-8 Engineer/Scientist

The ES-8 classification refers to either an individual that supports the manager of a large and complex program or one who can lead a lower tier subordinate project of a sizable magnitude program with multiple engineering disciplines. ES-8 Engineer/Scientist shall provide professional, technical and engineering skill services as needed to resolve complex problems pertaining to design, development, analysis, integration, evaluation, testing, and verification of systems, subsystems, and components.

Typical position titles include:
Technical Assistant
Senior Engineer
Senior Scientist
Lead Engineer
Lead Scientist
Chief Engineer
Chief Scientist

Typically, educational requirements are the equivalent of a Ph.D., with a minimum 10 years of experience, Masters with at least 12 years experience, or BS with at least 15 years experience.

ES-7 Engineer/Scientist

The ES-7 classification refers to an individual who develops work assignments, schedules, and responsibilities of subordinates. This individual assists in problem resolution and task completion through direction, mentoring and guidance. Distributes and balances team workload. Monitors work performed, ensuring work meets requirements and deadlines. Individual will have the ability to solve problems, determine project objectives and requirements, organize projects, and develop standards and guides for diverse activities. ES-7 Engineer/Scientist initiates and maintains extensive contacts with key engineers/scientists and officials of other organizations and companies, requiring skill in persuasion and negotiation of critical issues.

Typical position titles include:
Supervisor
Senior Engineer
Senior Scientist
Engineer
Scientist

Typically, educational requirements are the equivalent of a Ph.D. with a minimum of 8 years of experience, a Masters with at least 10 years experience, or a BS with at least 12 years experience.

ES-6 Engineer/Scientist

The ES-6 classification refers to an individual who is fully responsible technically for interpreting, organizing, executing, and coordinating assignments. This individual plans and develops engineering projects concerned with unique or controversial problems which have an important effect on major organization programs. This involves exploration of subject area, definition of scope and selection of problems for investigation and development of novel concepts and approaches. This individual maintains liaison with individuals and units within or outside the organization with responsibility for acting independently on technical matters pertaining to the field. This individual will plan, organize, and lead the work of a team of engineers and technicians. This ES-6 Engineer/Scientist evaluates the progress of a team and makes recommendations to achieve overall objectives.

Typical position titles include:
Engineer
Non-Supervisory Manager
Team Lead
Senior Engineer
Senior Scientist

Typically, educational requirements are the equivalent of a Ph.D. with a minimum 4 years of experience; Masters with at least 6 years experience, or a BS with at least 10 years experience.

ES-5 Engineer/Scientist

The ES-5 classification is an individual that applies intensive and diversified knowledge of engineering/scientific principles and practices in broad areas of assignments and related fields. This individual makes decisions independently on engineering problems and methods, and represents the organization in conferences. This individual utilizes advanced techniques, the modifications and extension of theories, and precepts. This individual may guide or be assisted by engineers/scientists or technicians.

Typical position titles include:
Engineer
Engineering Specialist
Scientist
Science Specialist
Research Engineer
Research Scientist

Typically, educational requirements are the equivalent of a Ph.D., a minimum of a Masters with at least 2 years experience, or BS with at least 6 years experience.

ES-4 Engineer/Scientist

The ES-4 classification refers to an individual who works under the guidance of a senior engineer/scientist as appropriate. This individual is knowledgeable in the subject matter of the functional area of the assignments, and plans and conducts work requiring interpretation of standard instructions, techniques, and procedures.

Typical position titles include:
Junior Engineer
Junior Scientist
Junior Research Engineer
Junior Research Scientist

Typically, educational requirements are the equivalent of a Masters, or a BS with at least 4 years of experience.

ES-3 Engineer/Scientist

The ES-3 classification refers to an individual who evaluates, selects, and applies standard engineering/scientific techniques, procedures, and criteria under the supervision of a senior engineer/scientist. Assignments have clear and specified objectives and require the investigation of a limited number of variables. The individual may be assisted by technicians, and others who assist in specific assignments.

Typical position titles include:
Junior Engineer
Junior Scientist
Junior Research Engineer
Junior Research Scientist

Typically, educational requirements are a minimum of a BS and at least 2 years experience or equivalent.

ES-2 Engineer/Scientist

The ES-2 classification is an individual at an entry level. The individual performs assignments designed to develop professional working knowledge and abilities requiring application of standard techniques, procedures, and criteria in carrying out a sequence of related engineering tasks. Limited exercise of judgment is required on details of work and in making preliminary selections and adaptations of engineering and scientific alternatives.

Typical position titles include:
Engineer-in-Training
Scientist-in-Training
Research Engineer-in-Training
Research Scientist-in-Training

Typically, educational requirement is a BS.

ES-1 Engineer/Scientist

The ES-1 classification is an individual who performs training assignments as an entry level position. The individual performs training assignments designed to develop professional working knowledge and abilities requiring application of standard techniques, procedures, and criteria in carrying out a sequence of related engineering tasks. Limited exercise of judgment is required on details of work and in making preliminary selections and adaptations of engineering and scientific alternatives.

Typical position titles include:
Pre-Graduate Engineer
Pre-Graduate Scientist
Pre-Graduate Research Engineer
Pre-Graduate Research Scientist
Cooperative Education Student Trainee

Typically, educational requirement is enrollment in a university or college program leading to a BS.

ET-6 Engineering Technician

(Wage Determination Occupation Codes of 30086) The ET-6 classification refers to a technician who works integrally with an engineer/scientist and may be a highly specialized expert focused in a particular field such as electrical, mechanical, instrumentation, drafting, or assembly disciplines. This individual independently plans and accomplishes projects and studies of complex scope. This individual works hand-in-hand with the team in problem identification, resolution, and task completion. This individual can be a lead technician who directs and provides mentoring and guidance to subordinates. With expert skills and extensive experience, this individual exercises a practical knowledge in a wide range of technical engineering and scientific methods, principles, requirements, work techniques, and practices in an area of specialization. This individual is an expert in analytical and diagnostic techniques, qualitative techniques for developing new, innovative, modified work methods, approaches, or procedures. Tasks include maintenance, operation, modification and adaptation of one-of-a-kind equipment supporting existing systems and technology development. This individual provides comprehensive management, consultation and technical services on relevant engineering or scientific functions and practices. This individual identifies, evaluates, and recommends appropriate solutions to resolve complex interrelated problems. This individual will formulate and present findings, briefings, project papers, status reports, and provide correspondence to foster understanding and acceptance of findings and recommendations.

Typically, educational requirement is a HS diploma or GED or equivalent; at least 15 years of experience and continuing education, or an Associate's Degree or Equivalent and at least 10 years of experience.

ET-5 Engineering Technician

(Wage Determination Occupation Codes of 30085) The ET-5 classification refers to a technician who works integrally with an engineer/scientist and could be a lead and may be highly specialized and focused in a particular field such as electrical, mechanical, instrumentation, drafting, or assembly disciplines. This individual independently plans and accomplishes projects and studies of complex scope. This individual works hand-in-hand with the team in problem identification, resolution, and task completion. With highly developed skills and extensive experience, this individual exercises a practical knowledge in a wide range of technical engineering methods, principles, requirements, work techniques, and practices in an area of specialization. This individual is highly skilled in analytical and

diagnostic techniques, qualitative techniques for developing new, innovative or modifying work methods, approaches, or procedures. Tasks include maintenance, operation, modification and adaptation of one-of-a-kind equipment supporting existing systems and/or technology development. This individual provides to management, technical recommendation and services on relevant engineering and scientific functions and practices. Complexity of assignments typically requires considerable creativity and judgment to devise approaches to accomplish work, resolve design and operational problems. This individual may make decisions in situations where standard engineering and scientific methods, procedures and techniques may not be applicable. This individual identifies, evaluates, and recommends appropriate solutions to resolve complex interrelated problems. This individual formulates and presents: findings, briefings, project papers, status reports, and correspondence to foster understanding and acceptance of findings and recommendations.

Typically, educational requirement is a HS diploma or GED or equivalent; at least 10 years of experience and continuing education, or an Associate's Degree or Equivalent at least 6 years of experience.

ET-4 Engineering Technician

(Wage Determination Occupation Codes of 30084) The ET-4 classification refers to a journeyman technician who works integrally with an engineer/scientist and exercises a practical knowledge of a wide range of technical, engineering, and scientific methods in the areas of electrical, mechanical, instrumentation, drafting, or assembly disciplines. This individual applies standardized rules or operations that require training and experience in methods and practices. The individual performs specific projects involving specialized or complicated procedures. This individual applies a wide variety of test and inspection techniques to various engineering and scientific aspects to make on-site determinations. This individual interprets drawings, plans, and specifications and identifies and corrects deficiencies in methods and practices. This individual resolves operational problems to ensure appropriate interaction between components and recommends improved procedures, and modifies parts, instruments, and equipment. This individual utilizes a variety of complex instruments, gauges, and methods to perform work on critical units or multiple subunits of a system or device. This individual takes actions or makes recommendations based on preliminary data interpretation or analysis. This individual prepares and presents inspection and testing reports and documentation. This individual selects and adapts plans, techniques, designs, and layouts. This individual communicates with personnel in problem resolution, coordinates the work, reviews, analyses and the integration of the technical work of others.

Typically, educational requirement is a HS diploma or GED or equivalent; at least 6 years of experience and continuing education, or an Associate's Degree or equivalent and at least 2 years of experience.

ET-3 Engineering Technician

(Wage Determination Occupation Codes of 30083) The ET-3 classification refers to a technician who works integrally with an engineer/scientist under the guidance of a higher level technician to apply and improve skills across a broad range of fields such as electrical, mechanical, instrumentation, drafting, or assembly disciplines. This individual applies standardized rules and exercises procedures through the guidance, training and experience of a higher level technician in engineering and scientific methods. This individual applies defined test and inspection techniques to various engineering aspects. This individual interprets drawings, plans, and specifications and identifies and corrects deficiencies in methods and practices under the guidance of an engineer, scientist, or higher level technician. This individual prepares and presents inspection and test reports and corresponding documentation.

Typically, educational requirement is a HS diploma or GED or equivalent; at least 4 years of experience, or an Associate's Degree.

ET-2 Engineering Technician

(Wage Determination Occupation Codes of 30082) The ET-2 classification refers to a technician who works integrally with an engineer/scientist under the guidance of a higher level technician to apply and improve skills across a broad range in fields such as electrical, mechanical, instrumentation, drafting, or assembly disciplines. This individual applies standardized rules and exercises procedures through the guidance, training and experience of a higher level technician in engineering and scientific methods. This individual applies defined test and inspection techniques to various engineering and scientific aspects. This individual implements drawings, plans, and specifications and helps identify and correct deficiencies. This individual interprets drawings, plans, and specifications and identifies and corrects deficiencies in methods and practices under the guidance of an engineer, scientist, or higher level technician. This individual prepares and presents inspection and test reports and corresponding documentation.

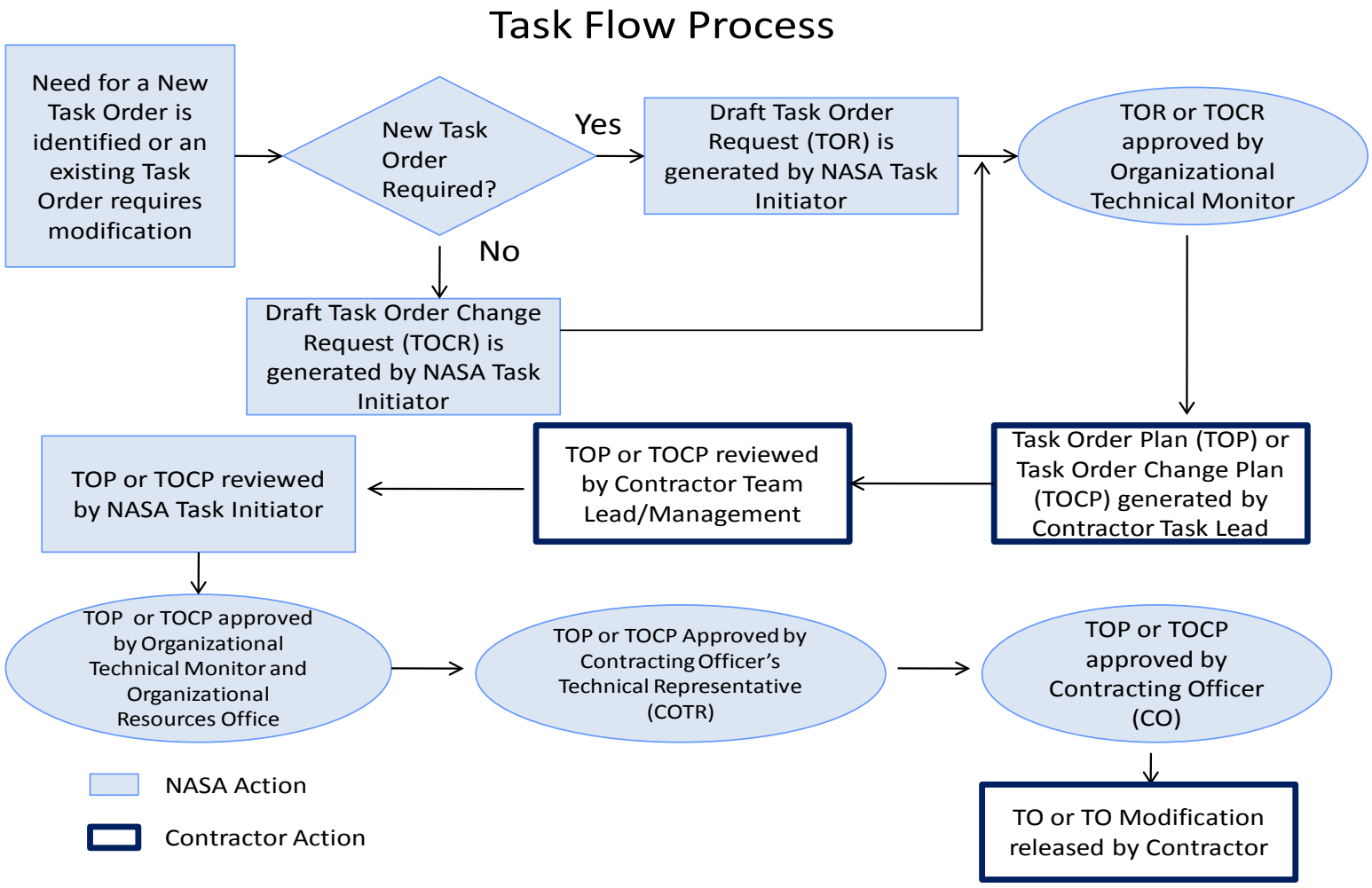
Typically, educational requirement is a HS diploma or GED or equivalent; at least 2 years of general experience.

ET-1 Engineering Technician

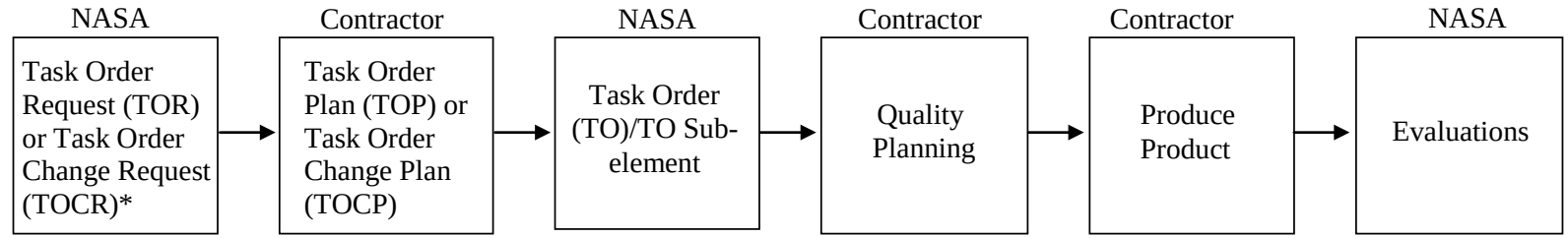
(Wage Determination Occupation Codes of 30081) The ET-1 classification refers to an entry level technician who receives on-the-job training. The individual follows standard work methods on recurring assignments but receives explicit instructions on unfamiliar assignments. The technical adequacy of routine work is reviewed on completion and non-routine work may be reviewed in progress. This individual receives on-the-job training in the engineering and scientific fields to utilize tools such as: simple hand instruments, levels and compasses. This individual will use skills to draw simple curves and lines, make tracings, or take measurements, take test readings and record findings, perform basic mathematics using standard formulas, conduct basic field observations and obtain, identify, handle, and store material samples, and assist higher level technicians by preparing graphs, charts, diagrams, and visual presentations.

Typically, educational requirement is a HS diploma or GED or equivalent.

ATTACHMENT J-10



Task Flow Description



What should be done?	How will it be done?	How will approval be provided?	How is it controlled?	How is it being done?	How did they do?
Technical Requirements - Deliverables - Other specific technical requirements -As coordinated with customer Cost Constraints Schedule Requirements Milestones Performance Objectives Defined	Technical - Skills - Tools required - Technical Content - WBS element Cost - Cost Plan - Labor (including Subcontractor's) - Material - ODC (Travel, etc.) Schedule - Milestone Schedule - Delivery Dates Risk Assessment - Mitigation Special - OCI - Recruiting - Safety - Government Furnished Property (GFP)	Agreement Reached Authorization to begin performance Or Disapproval Organizational Technical Monitor Approval Resource Analyst Approval COTR Approval CO Approval	Quality System Requirements Quality Records	Activity Reports - Technical - Cost - Schedule - Issues All requirements addressed Submitted electronically	Quality Performance Survey, Sub-element Cost Estimate, Timeliness, Small Business Goals, Time to fill Vacancies Contractor Self Assessment Survey and Fee deduction evaluations conducted at mid-term, year-end Quarterly review Fee deduction, if required, determined by CO. Annual Contractor Performance Assessment Reporting System (CPARS) evaluation with Contractor review/comments

*Task denotes both Task Order and associated sub-element(s). Task Orders will be tracked and evaluated at the sub-element level.
TO Modifications are signed by NASA and Contractor and tracked through electronic system.

ATTACHMENT J-11

WORK BREAKDOWN STRUCTURE (WBS)

(a) General Guidance

(1) This attachment shall be used to meet the requirements of the Work Breakdown Structure (WBS).

(2) The Work Breakdown Structure (WBS) for the Engineering and Science Services and Skills Augmentation (ESSSA) contract is intentionally structured to be skill based. The skill based structure focuses the Contractor on management of the skill base across the MSFC organizational structure.

(3) The WBS is structured for Task Orders (TOs) to be written at the skill set/Department Level (Level 3), where the Department refers to Department, Laboratory, Office and Project. The TO sub-elements are to be written at the Branch/Project-Subsystem levels (Level 4). The Contractor will manage and report at the sub-element level. The WBS shall provide unique and consistent WBS identification in order to avoid duplication and to provide consistency and tracking of hardware across multiple departments.

(4) The WBS structure allows the Government to easily track cost by sponsoring and performing department, division, branch, program, project, and individual test. These are the fields that the Government uses to track and manage resources.

(5) The WBS and financial Data Requirements Descriptions (DRDs) are written to allow the Government to calculate Earned Value Management (EVM) from the delivered data in DRD 1390MA- 007, *Financial Management Report (533M),* and DRD 1390MA-005, *Task Order Activity Reports*.

(b) Requirements

(1) The Offeror may create their own WBS, however it shall meet the following mandatory requirements:

(2) The Contractor shall provide the *Work Breakdown Structure (WBS) and WBS dictionary*, DRD 1390MA-004.

(3) The Contractor shall specify how the Contract will handle contract management and control in the WBS.

(4) The Contractor shall develop a numbering/lettering scheme that is compatible with the information required by the Government and the Contractor’s Automated Task Order Management System (ATOMS) and financial accounting system.

(5) Level 1 shall define the contract

(6) Level 2 shall define the skill categories that match the skill categories listed in the PWS Section 3.0

(7) Level 3 shall define the performing Department, Laboratory, Office or Project

(8) Level 4 shall define the performing Branch, and the sponsoring Project and Subsystem. The Branch, Project, and Subsystem categories shall each be distinguishable.

(9) Level 5 shall define limited cases where the Government chooses to track at a lower level, such as a test identifier

(10) Other information required:

(i) Sponsoring Directorate

(ii) Sponsoring Branch

(iii) Sponsoring Program

(c) WBS Example Format

(1) The following is an example of a WBS and associated tracking data. The Contractor may use either numbers or letters or combinations thereof within the format of the WBS structure. This WBS is a hybrid of WBS and tracking data needed to track and understand the work.

(2) The examples in the WBS are notional and do not indicate that actual TOs will be issued in these areas.

(3) The following is an example of a WBS and tracking data:

zz.aa.bb.ccc.dddd.eee.ffff.gg.hhh.ii
Level 1= zz
Level 2=aa
Level 3- bbb
Level 4= ccc.dddd.eee
Level 5=ffff
gg.hhh.ii are tracking data.

Each letter grouping (such as “aa” in the above example) designates a field that MSFC wants to use as part of the WBS to specify WBS level or to specify tracking data.

(4) The following describes each field in the above example:

(i) Level 1
Field: zz
WBS Level: 1
Description: Contract identification
The WBS Level 1 is the ESSSA Contract. In the examples cited in the PWS, Attachment J-1, the letters ES were used to denote the ESSSA contract.

(ii) Level 2
Field: aa
WBS Level: 2
Description: Skill category which also matches an area in the PWS

Example Value	Corresponding Skill Description
1	Aerodynamics Design, Analysis and Test
2	Avionics Design, Analysis and Test
3	Electrical Engineering Design, Analysis and Test
4	Guidance, Navigation, and Control (GN&C) Design and Analysis
5	Manufacturing and Assembly (M&A)
6	Materials Design, Analysis, and Test
7	Structural and Mechanical Design and Analysis
8	Operability Design, Analysis and Test
9	Natural and Induced Environments Design, Analysis and Test
10	Optics Design, Analysis and Test
11	Propulsion System Design, Analysis, and Test
12	Scientific Disciplines Design, Analysis, and Test
13	Spacecraft and Space Systems Software Design, Analysis and Test
14	Systems Engineering
15	Test Design and Operations
16	Thermal and Fluids Design, Analysis and Test
17	Systems Management
18	Hardware and Hardware/Software Integration and Test

(iii) Level 3
Field: bb
WBS Level: 3
Description: Performing Department, Laboratory, Office or Project

Example Value	Organizational Symbol	Corresponding Department, Laboratory, Office or Project Name
1	ED	Engineering Directorate
2	EM	Materials and Processes Laboratory
3	EO	Mission Operations Laboratory
4	ER	Propulsion Systems Department
5	ES	Space Systems Department
6	ET	Test Laboratory
7	EV	Spacecraft and Vehicle Systems Department
8	JP	Ares Projects Office
9	MP	Shuttle Propulsion Office
10	VP	Science and Mission Systems Office
11	HS	Office of Human Capital

(iv) Level 4
Field: ccc
WBS Level: 4
Description: Branch identifier (the combination of ccc, dddd, and eee are the level 4 of the WBS). The branch identifier is identified with three fields allowing separate areas to be distinguished when needed. In the examples here and in the PWS, the branch identifier is simply the numeric mailcode of the branch. Three fields may be needed as some branches distinguish areas within a branch.
For example, 31B

Field: dddd
WBS Level: 4
Description: Sponsoring Project (combination of Branch, Project and Subsystem) are the Level 4 of the WBS. Depending on the project size, the subsystem may also be utilized to distinguish level 4 WBS
For example, Environmental Control and Life Support System (ECLSS)

Field: eee
WBS Level: 4
Description: Subsystem (combination of Branch, Project and Subsystem are the Level 4 of the WBS). If needed, the subsystem may be utilized in combination with Project as part of Level 4 of the WBS for larger projects. If not utilized, the code should utilize “0”, “xxx”, or some other means to keep this placeholder.)
For example, Waste and Hygiene Compartment (WHC)

(v) Level 5
Field: ffff
WBS Level: 5
Description: Test (if needed.) If not utilized, the code should utilize “0”, “xxx”, or some other means to keep this placeholder.)

(vi) Other Reporting Fields.
Field: gg
WBS Level: not part of the WBS but used for tracking purposes
Description: Sponsoring Directorate

Example Value	Organizational Symbol	Corresponding Department, Laboratory, Office or Project Name
1	ED	Engineering Directorate
2	EM	Materials and Processes Laboratory
3	EO	Mission Operations Laboratory
4	ER	Propulsion Systems Department
5	ES	Space Systems Department
6	ET	Test Laboratory
7	EV	Spacecraft and Vehicle Systems Department
8	JP	Ares Projects Office
9	MP	Shuttle Propulsion Office
10	VP	Science and Mission Systems Office
11	HS	Office of Human Capital

Field: hh
WBS Level: not part of the WBS but used for tracking purposes
Description: Sponsoring Branch

Field: ii
WBS Level: not part of the WBS but used for tracking purposes
Description: Program
For example, International Space Station

(d) Examples using WBS Example Format

Examples of the WBS/tracking data could be:

(1) **ES.7.5.21.EC.WHC.0.10.34.IS**

Level 1: Contract Identifier: ESSSA contract

Level 2: Skill: Structural and Mechanical Design, Analysis, and Test

Level 3: Performing Department: Space Systems Department (ES)

Level 4: Branch ES21 Structural and Mechanical Design for Environmental Control and Life Support Systems (ECLSS) Project, Waste and Hygiene Compartment (WHC)

Level 5: Test: n/a

Other Data needed to be tracked:
Sponsoring Office: VP
Sponsoring Branch: International Space Station Vehicles Office
Program: International Space Station

(2) **ES.7.4.41.10.0.0.7.9.1**

Level 1: Contract Identifier: ESSSA contract

Level 2: Skill: Structural and Mechanical Design, Analysis, and Test

Level 3: Propulsions Systems Department (ER)

Level 4: Structural & Dynamics Analysis Branch (ER41) for Space Shuttle Main Engine Project with no subsystem

Level 5: Test: n/a

Other Data needed to be tracked:
Sponsoring Engineering: Spacecraft Vehicle Systems Department (EV)
Sponsoring Branch: Spacecraft Vehicle Systems Department (EV01)
Program: Space Shuttle

ATTACHMENT J-12

DD254 – Department of Defense
Contract Security Classification Specification

TO BE FILLED OUT BY THE CONTRACTOR FOR TASK ORDERS REQUIRING SECURITY CLEARANCE

NOTE TO OFFERORS: In the past, the ESTS Contract has performed classified tasks. There is currently no expectation of tasks requiring security clearance at the start of this contract. However, if a task is generated during this contract period that requires security clearance, the Contractor shall complete this attached DD254 form.

DEPARTMENT OF DEFENSE
CONTRACT SECURITY CLASSIFICATION SPECIFICATION

(The requirements of the DoD Industrial Security Manual apply to all security aspects of this effort.)

1. CLEARANCE AND SAFEGUARDING

a. FACILITY CLEARANCE REQUIRED

b. LEVEL OF SAFEGUARDING REQUIRED

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

	a. PRIME CONTRACT NUMBER	
	b. SUBCONTRACT NUMBER	
	c. SOLICITATION OR OTHER NUMBER	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)*
	c. **FINAL** *(Complete Item 5 in all cases)*		Date *(YYMMDD)*

4. IS THIS A FOLLOW-ON CONTRACT? ☐ **YES** ☐ NO. If Yes, complete the following:

Classified material received or generated under _____ *(Preceding Contract Number)* is transferred to this follow-on contract.

5. IS THIS A FINAL DD FORM 254? ☐ YES ☐ **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	b. CAGE CODE	c. COGNIZANT SECURITY OFFICE *(Name, Address, and Zip Code)*

7. SUBCONTRACTOR

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

8. ACTUAL PERFORMANCE

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

9. GENERAL IDENTIFICATION OF THIS PROCUREMENT

10. CONTRACTOR WILL REQUIRE ACCESS TO:	YES	NO
a. COMMUNICATIONS SECURITY (COMSEC) INFORMATION		
b. RESTRICTED DATA		
c. CRITICAL NUCLEAR WEAPON DESIGN INFORMATION		
d. FORMERLY RESTRICTED DATA		
e. INTELLIGENCE INFORMATION		
(1) Sensitive Compartmented Information (SCI)		
(2) Non-SCI		
f. SPECIAL ACCESS INFORMATION		
g. NATO INFORMATION		
h. FOREIGN GOVERNMENT INFORMATION		
i. LIMITED DISSEMINATION INFORMATION		
j. FOR OFFICIAL USE ONLY INFORMATION		
k. OTHER *(Specify)* *Sensitive but Unclassified(SBU)*		

11. IN PERFORMING THIS CONTRACT, THE CONTRACTOR WILL:	YES	NO
a. HAVE ACCESS TO CLASSIFIED INFORMATION ONLY AT ANOTHER CONTRACTOR'S FACILITY OR A GOVERNMENT ACTIVITY		
b. RECEIVE CLASSIFIED DOCUMENTS ONLY		
c. RECEIVE AND GENERATE CLASSIFIED MATERIAL		
d. FABRICATE, MODIFY, OR STORE CLASSIFIED HARDWARE		
e. PERFORM SERVICES ONLY		
f. HAVE ACCESS TO U.S. CLASSIFIED INFORMATION OUTSIDE THE U.S., PUERTO RICO, U.S. POSSESSIONS AND TRUST TERRITORIES		
g. BE AUTHORIZED TO USE THE SERVICES OF DEFENSE TECHNICAL INFORMATION CENTER (DTIC) OR OTHER SECONDARY DISTRIBUTION CENTER		
h. REQUIRE A COMSEC ACCOUNT		
i. HAVE TEMPEST REQUIREMENTS		
j. HAVE OPERATIONS SECURITY (OPSEC) REQUIREMENTS		
k. BE AUTHORIZED TO USE THE DEFENSE COURIER SERVICE		
l. OTHER *(Specify)*		

DD Form 254, DEC 90 (EG) *Previous editions are obsolete.* (MS Word 4/96)

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)*

to the Directorate for Freedom of Information and Security Review, Office of the Assistant Secretary of Defense (Public Affairs)* for review.
*In the case of non-DoD User Agencies, requests for disclosure shall be submitted to that agency.

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.)*

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	b. TITLE	c. TELEPHONE *(Include Area Code)*

d. ADDRESS *(Include Zip Code)*	**17. REQUIRED DISTRIBUTION**
	☐ a. CONTRACTOR
	☐ b. SUBCONTRACTOR
	☐ c. COGNIZANT SECURITY OFFICE FOR PRIME AND SUBCONTRACTOR
e. SIGNATURE	☐ d. U.S. ACTIVITY RESPONSIBLE FOR OVERSEAS SECURITY ADMINISTRATION
	☐ e. ADMINISTRATIVE CONTRACTING OFFICER
	☐ f. OTHERS AS NECESSARY

DD Form 254 Page Two, Dec 90 (EG) (MS Word 4/96)

ATTACHMENT J-13

SAFETY, HEALTH AND ENVIRONMENTAL (SHE) PLAN

The approved *Safety, Health and Environmental (SHE) Plan*, dated *(August 8, 2011)* and submitted with the Contractor's proposal, and any subsequent approved revisions during the term of this contract, is hereby incorporated into the contract by reference, with the same force and effect as if it were given in full text.

ATTACHMENT J-14

SAFETY HEALTH MANAGEMENT IMPLEMENTATION GUIDE AND ASSESSMENT MATRIX

Score	Management Leadership and Involvement (Element 1)		Worksite Analysis (Element 2)	Hazard Prevention and Control (Element 3)	Safety and Health Training (Element 4)
	A. Management	B. Employee			
10	Benchmarking indicates "Best in Class." In areas of visible management leadership, responsibility/accountability, meaningful metrics, and incentive/recognition systems.	Employees fully involved, safety committees functioning well, is a complete behavior process functioning at least one year, employees involved in process planning and risk assessment.	All sub-elements fully in place and functioning well for at least one year.	All programs and sub-elements fully functioning for one year, strong professional support.	All training processes functioning, all levels of personnel trained to identified needs, management training ongoing.
9	All sub-elements are in place and functioning well, but have as yet to reach full maturity.	All processes functioning but for limited time, employees involved to great extent.	All sub-elements in place, employees actively participating.	All programs and sub-elements in place and functioning.	All training processes established, management initial training complete.
8	One sub-element not fully in place but all are being implemented.	Most processes in place, employee involvement growing.	All sub-elements functioning, employee participation growing.	At least five sub-elements functioning and one in final stage of implementation.	Most personnel trained to identified needs, training recordkeeping and recall system functioning.
7	Two sub-elements not fully implemented. Implementation in process on all elements. Employee participation and commitment widespread.	Process activities expanding through organization. Committees and teams functioning.	At least five sub-elements functioning and remainder established.	At least four sub-elements functioning, remaining two developing.	Management and supervisor training in process specialized training in process.
6	All sub-elements in process or in place. Strong management leadership and commitment have begun, metric systems in place, resourcing appropriate.	Employee representatives functioning, joint committees functioning, participating in risk assessment and accident investigation.	At least four sub-elements functioning and remaining three in process, employee participation beginning to spread through organization.	Medical and safety programs strengthening, emergency preparedness program established and exercised.	Management training in process developed, supervisor training developed, training recordkeeping and recall system developed.
5	Management commitment and leadership accepted by workers, worker participation and commitment begun, metric system.	Employee representatives appointed/elected, committees beginning to perform functions (investigation, analysis, process improvement).	All sub-elements established, employees beginning to participate.	Rules written, medical and safety programs developing Personal Protective Equipment adequate.	Training template completed for all personnel, training needs identified, process development begun, recordkeeping and recall system being developed.
4	Management commitment and leadership flowing down to workers, metric systems being developed, incentive/recognition system in process.	All processes being established, involvement and awareness enhancement growing.	At least five sub-elements initiated including self-assessment, hazard reporting, and mishap close call investigations.	Rules in process, emergency preparedness program being developed.	Training development in process, specialized training established, mandatory training in process
3	Generally good management commitment and leadership, implementation plans approved for all elements.	All process needs identified, awareness and involvement enhancement activities begun.	Job Hazard analysis established, investigations strengthened and include employees.	Medical program initiated safety and health program initiated.	Training needs evaluation complete, training templates in process, recordkeeping and recall system needs to be established
2	Management exhibits some aspects of leadership, accountability systems not well defined, employee participation framework defined, limited metrics.	Committees established, little activity, employee involvement beginning, awareness of process started.	Plans established to implement all sub-elements, at least two sub-elements beginning to function.	Personal protective equipment requirements established and being enforced, plans developed for other elements.	Training needs evaluation begun, training template forms developed.
1	Sub-elements have not been established to any significant extent, management leadership is lacking, little or no employee participation.	No committees, little or no employee involvement, no process, little process planning.	Two or fewer sub-elements established, no self-inspection, shallow accident investigation process.	Few or no programs or sub-elements established, few written rules, limited enforcement.	Training needs not established, no management training, limited or no supervisor training.

Safety and Health Performance Self-Evaluation

Contractors shall conduct an annual self-evaluation of their safety and health program based on the applicable elements and sub-elements of the MSFC safety, health and environmental (SHE) program as listed below. Specific criteria are shown on above entitled "Safety Health Management Implementation Guide and Assessment Matrix." Element 1 has a management and employee component. These are simply averaged to obtain the score for Element 1. The result should be carried to the second decimal point. The score for each element should be shown below along with explanatory comments for each element.

(ELEMENT 1)	**(ELEMENT 3)**
Management and Employee Involvement	**Hazard Prevention and Control**
Management Commitment	Hazard Elimination and Control Process (Engineering/Administrative/Safety Devices/Work Practices/Personal Protective Equipment)
Documented Safety Policy and Goals	Preventative Maintenance for Facility and Equipment
Employee Involvement/Engagement	Emergency Preparedness and Drills
Safety Committees	Emergency Medical Care Program
Safety Meetings	Hazard Control Programs
Subcontractor Safety	Occupational Health Program
Resources	Tracking Hazard Correction
Accountability	Access to Professional Safety Staff
Annual Safety and Health Program Evaluation	Disciplinary Program

(ELEMENT 2)	**(ELEMENT 4)**
Worksite Hazard Analysis	**Safety and Health Training**
Baseline Surveys and Analyses For The Worksite	Employee Knowledge Of Hazards In The Workplace, Recognize Hazards, Signs and Symptoms Of Workplace-Related Illnesses, and Safe Work Procedures
Perform Analysis Of New Work and When Significant Changes Occur	Supervisor and Managers Understand Their Safety and Health Responsibilities
Job Hazard Analysis/ Process Review For Routine Jobs	Training Documentation
Routine Self-Inspections	Training Curriculum Specific To The Worksite Operations
Hazard Reporting By Employees	
Investigation Of Mishap/Close Calls	
Injury/Illness Rates	

Contractor: _____ Contract #: _____ Date of Evaluation Period: _____
Name of Person Verifying: _____
Position: _____
Telephone Number: _____
Email: _____
Date: _____
Signature: _____

Element 1:
Management Commitment: ___ Employee Involvement: ____ Combined Average: ___

Comments:

Element 2:
Worksite Analysis: __

Comments:

Element 3:
Hazard Prevention and Control: _____

Comments:

Element 4:
Safety and Health Training: ____

Comments:

Total Score: _____

Comments/ Validation By:

Comments:

Contracting Officer:

Comments:

COTR:

Comments:

Representative/S&MA Office:

Comments**:**

ATTACHMENT J-15

ORGANIZATIONAL CONFLICT OF INTEREST (OCI) PLAN

The approved *Organizational Conflict of Interest (OCI) Plan*, dated *(April 4, 2012)* and submitted with the Contractor's proposal, and any subsequent approved revisions during the term of this contract, is hereby incorporated into the contract by reference, with the same force and effect as if it were given in full text.

ATTACHMENT J-16

PERSONAL IDENTITY VERIFICATION (PIV) PROCEDURES

PIV Card Issuance Procedures (in accordance with FAR Clause 52.204-9, *Personal Identity Verification of Contractor Personnel*):

Federal Information Processing Standards (FIPS) 201 Appendix A graphically displays the following procedure for the issuance of a PIV credential.

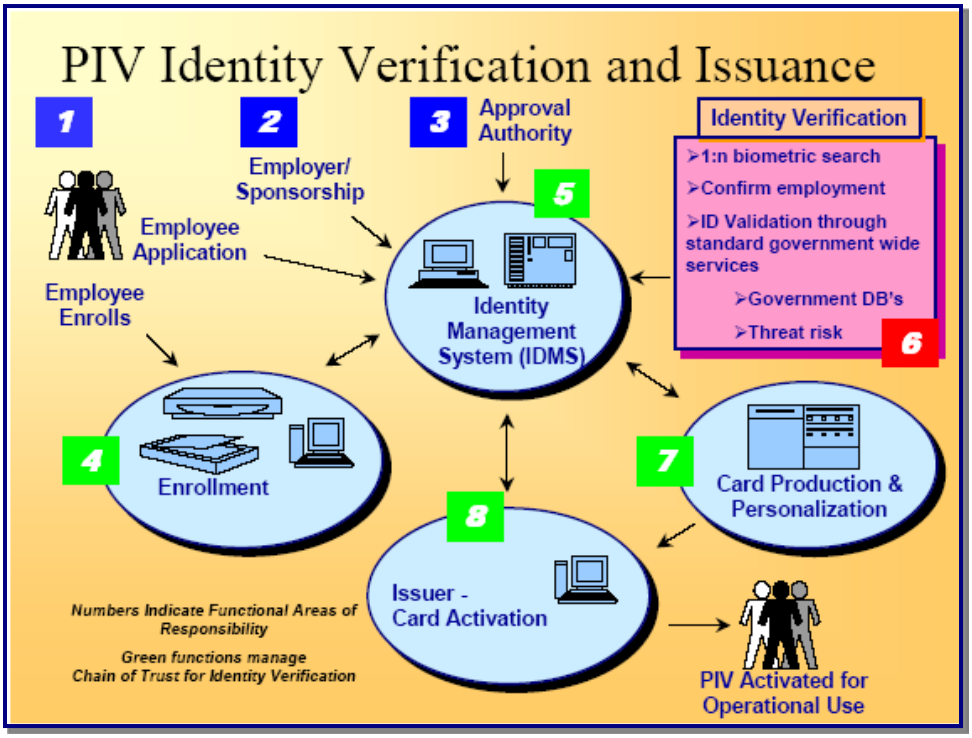


Figure A-1, FIPS 201, Appendix A

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 (NFNMS) 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 NFNMS 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 Office of Personnel Management (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 of which must be a Federal[1] or State issued picture identification. Fingerprints will be taken at this time. The applicant must appear no later than the entry on duty date.

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

Step 3:
Upon the applicant's completion of the investigative document, the CCS reviews the information, and resolves discrepancies with the applicant as necessary. When the applicant has appeared in person and completed fingerprints, the package is electronically submitted to initiate the NACI. The CCS includes a request for feedback on the NAC portion of the NACI at the time the request is submitted.

Step 4:
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 a National Crime Information Center (NCIC) with an Interstate Identification Index check is/has been performed. 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

[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

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 initiates 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 (EOD)

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 Form I-9 documents and completion of fingerprints, if not already accomplished. If the applicant fails to complete these activities as prescribed in NASA Procedural Requirements (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 6 months. If at the end of the 6-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.

ATTACHMENT J-17

WAGE DETERMINATION

WD 05-2007 (Rev.-15) was first posted on www.wdol.gov on 06/17/2011
****

REGISTER OF WAGE DETERMINATIONS UNDER THE SERVICE CONTRACT ACT
By direction of the Secretary of Labor

U.S. DEPARTMENT OF LABOR
EMPLOYMENT STANDARDS ADMINISTRATION
WAGE AND HOUR DIVISION
WASHINGTON D.C. 20210

Wage Determination No.: 2005-2007
Revision No.: 15
Date Of Revision: 06/13/2011

Diane C. Koplewski
Director

Division of
Wage Determinations

States: Alabama, Tennessee

Area: Alabama Counties of Colbert, Franklin, Jackson, Lauderdale, Lawrence, Limestone, Madison, Marion, Marshall, Morgan, Winston
Tennessee Counties of Giles, Lawrence, Lincoln, Moore, Wayne

Fringe Benefits Required Follow the Occupational Listing

OCCUPATION CODE - TITLE	FOOTNOTE	RATE
01000 - Administrative Support And Clerical Occupations		
01011 - Accounting Clerk I		13.47
01012 - Accounting Clerk II		14.65
01013 - Accounting Clerk III		16.77
01020 - Administrative Assistant		21.27
01040 - Court Reporter		17.16
01051 - Data Entry Operator I		11.95
01052 - Data Entry Operator II		13.89
01060 - Dispatcher, Motor Vehicle		16.31
01070 - Document Preparation Clerk		12.47
01090 - Duplicating Machine Operator		12.47
01111 - General Clerk I		10.88
01112 - General Clerk II		11.87
01113 - General Clerk III		13.86
01120 - Housing Referral Assistant		19.14
01141 - Messenger Courier		10.07
01191 - Order Clerk I		12.66
01192 - Order Clerk II		15.27
01261 - Personnel Assistant (Employment) I		14.18
01262 - Personnel Assistant (Employment) II		15.86
01263 - Personnel Assistant (Employment) III		17.70
01270 - Production Control Clerk		19.18
01280 - Receptionist		11.86
01290 - Rental Clerk		12.97
01300 - Scheduler, Maintenance		15.32
01311 - Secretary I		15.32
01312 - Secretary II		17.16
01313 - Secretary III		19.14
01320 - Service Order Dispatcher		13.83
01410 - Supply Technician		21.27
01420 - Survey Worker		16.81
01531 - Travel Clerk I		11.08
01532 - Travel Clerk II		11.72
01533 - Travel Clerk III		12.50
01611 - Word Processor I		13.12

01612 - Word Processor II	14.73
01613 - Word Processor III	16.48
05000 - Automotive Service Occupations	
05005 - Automobile Body Repairer, Fiberglass	19.25
05010 - Automotive Electrician	18.61
05040 - Automotive Glass Installer	17.74
05070 - Automotive Worker	17.74
05110 - Mobile Equipment Servicer	16.08
05130 - Motor Equipment Metal Mechanic	19.47
05160 - Motor Equipment Metal Worker	17.74
05190 - Motor Vehicle Mechanic	17.78
05220 - Motor Vehicle Mechanic Helper	13.93
05250 - Motor Vehicle Upholstery Worker	16.93
05280 - Motor Vehicle Wrecker	17.74
05310 - Painter, Automotive	17.00
05340 - Radiator Repair Specialist	17.74
05370 - Tire Repairer	12.75
05400 - Transmission Repair Specialist	19.47
07000 - Food Preparation And Service Occupations	
07010 - Baker	11.24
07041 - Cook I	9.14
07042 - Cook II	10.27
07070 - Dishwasher	7.82
07130 - Food Service Worker	8.09
07210 - Meat Cutter	14.21
07260 - Waiter/Waitress	7.90
09000 - Furniture Maintenance And Repair Occupations	
09010 - Electrostatic Spray Painter	17.56
09040 - Furniture Handler	13.94
09080 - Furniture Refinisher	17.56
09090 - Furniture Refinisher Helper	14.41
09110 - Furniture Repairer, Minor	15.98
09130 - Upholsterer	17.56
11000 - General Services And Support Occupations	
11030 - Cleaner, Vehicles	10.28
11060 - Elevator Operator	10.02
11090 - Gardener	12.11
11122 - Housekeeping Aide	10.02
11150 - Janitor	10.02
11210 - Laborer, Grounds Maintenance	10.00
11240 - Maid or Houseman	8.67
11260 - Pruner	9.28
11270 - Tractor Operator	12.08
11330 - Trail Maintenance Worker	10.00
11360 - Window Cleaner	10.97
12000 - Health Occupations	
12010 - Ambulance Driver	15.85
12011 - Breath Alcohol Technician	16.00
12012 - Certified Occupational Therapist Assistant	21.95
12015 - Certified Physical Therapist Assistant	21.95
12020 - Dental Assistant	16.00
12025 - Dental Hygienist	22.48
12030 - EKG Technician	23.45
12035 - Electroneurodiagnostic Technologist	23.45
12040 - Emergency Medical Technician	15.85

12071 - Licensed Practical Nurse I		14.30
12072 - Licensed Practical Nurse II		16.00
12073 - Licensed Practical Nurse III		17.84
12100 - Medical Assistant		11.87
12130 - Medical Laboratory Technician		14.07
12160 - Medical Record Clerk		12.41
12190 - Medical Record Technician		14.96
12195 - Medical Transcriptionist		13.59
12210 - Nuclear Medicine Technologist		30.65
12221 - Nursing Assistant I		9.43
12222 - Nursing Assistant II		10.61
12223 - Nursing Assistant III		11.57
12224 - Nursing Assistant IV		12.99
12235 - Optical Dispenser		15.05
12236 - Optical Technician		12.56
12250 - Pharmacy Technician		13.36
12280 - Phlebotomist		12.99
12305 - Radiologic Technologist		23.95
12311 - Registered Nurse I		22.94
12312 - Registered Nurse II		28.08
12313 - Registered Nurse II, Specialist		28.08
12314 - Registered Nurse III		33.97
12315 - Registered Nurse III, Anesthetist		33.97
12316 - Registered Nurse IV		40.70
12317 - Scheduler (Drug and Alcohol Testing)		19.83
13000 - Information And Arts Occupations		
13011 - Exhibits Specialist I		20.09
13012 - Exhibits Specialist II		24.89
13013 - Exhibits Specialist III		30.45
13041 - Illustrator I		20.09
13042 - Illustrator II		24.89
13043 - Illustrator III		30.45
13047 - Librarian		27.56
13050 - Library Aide/Clerk		15.94
13054 - Library Information Technology Systems Administrator		24.89
13058 - Library Technician		16.14
13061 - Media Specialist I		17.96
13062 - Media Specialist II		20.09
13063 - Media Specialist III		22.40
13071 - Photographer I		16.19
13072 - Photographer II		18.70
13073 - Photographer III		22.40
13074 - Photographer IV		27.38
13075 - Photographer V		33.23
13110 - Video Teleconference Technician		17.96
14000 - Information Technology Occupations		
14041 - Computer Operator I		15.55
14042 - Computer Operator II		19.13
14043 - Computer Operator III		20.49
14044 - Computer Operator IV		26.16
14045 - Computer Operator V		27.62
14071 - Computer Programmer I		25.00
14072 - Computer Programmer II	(see 1)	
14073 - Computer Programmer III	(see 1)	

14074 - Computer Programmer IV	(see 1)	
14101 - Computer Systems Analyst I	(see 1)	
14102 - Computer Systems Analyst II	(see 1)	
14103 - Computer Systems Analyst III	(see 1)	
14150 - Peripheral Equipment Operator		15.55
14160 - Personal Computer Support Technician		26.16
15000 - Instructional Occupations		
15010 - Aircrew Training Devices Instructor (Non-Rated)		29.35
15020 - Aircrew Training Devices Instructor (Rated)		35.52
15030 - Air Crew Training Devices Instructor (Pilot)		36.76
15050 - Computer Based Training Specialist / Instructor		30.38
15060 - Educational Technologist		30.52
15070 - Flight Instructor (Pilot)		36.76
15080 - Graphic Artist		22.01
15090 - Technical Instructor		18.91
15095 - Technical Instructor/Course Developer		23.11
15110 - Test Proctor		17.16
15120 - Tutor		17.16
16000 - Laundry, Dry-Cleaning, Pressing And Related Occupations		
16010 - Assembler		8.30
16030 - Counter Attendant		8.30
16040 - Dry Cleaner		10.44
16070 - Finisher, Flatwork, Machine		8.30
16090 - Presser, Hand		8.30
16110 - Presser, Machine, Drycleaning		8.30
16130 - Presser, Machine, Shirts		8.30
16160 - Presser, Machine, Wearing Apparel, Laundry		8.30
16190 - Sewing Machine Operator		11.03
16220 - Tailor		11.64
16250 - Washer, Machine		9.00
19000 - Machine Tool Operation And Repair Occupations		
19010 - Machine-Tool Operator (Tool Room)		24.44
19040 - Tool And Die Maker		29.82
21000 - Materials Handling And Packing Occupations		
21020 - Forklift Operator		14.82
21030 - Material Coordinator		19.18
21040 - Material Expediter		19.18
21050 - Material Handling Laborer		10.48
21071 - Order Filler		10.87
21080 - Production Line Worker (Food Processing)		14.82
21110 - Shipping Packer		12.98
21130 - Shipping/Receiving Clerk		12.98
21140 - Store Worker I		12.06
21150 - Stock Clerk		16.35
21210 - Tools And Parts Attendant		14.82
21410 - Warehouse Specialist		14.82
23000 - Mechanics And Maintenance And Repair Occupations		
23010 - Aerospace Structural Welder		20.61
23021 - Aircraft Mechanic I		22.24
23022 - Aircraft Mechanic II		23.35
23023 - Aircraft Mechanic III		24.52
23040 - Aircraft Mechanic Helper		17.44
23050 - Aircraft, Painter		19.32
23060 - Aircraft Servicer		19.34
23080 - Aircraft Worker		20.27

23110 - Appliance Mechanic	18.04
23120 - Bicycle Repairer	14.66
23125 - Cable Splicer	19.76
23130 - Carpenter, Maintenance	17.56
23140 - Carpet Layer	17.29
23160 - Electrician, Maintenance	23.21
23181 - Electronics Technician Maintenance I	19.44
23182 - Electronics Technician Maintenance II	25.55
23183 - Electronics Technician Maintenance III	26.62
23260 - Fabric Worker	16.54
23290 - Fire Alarm System Mechanic	18.79
23310 - Fire Extinguisher Repairer	15.72
23311 - Fuel Distribution System Mechanic	18.79
23312 - Fuel Distribution System Operator	16.80
23370 - General Maintenance Worker	16.43
23380 - Ground Support Equipment Mechanic	22.24
23381 - Ground Support Equipment Servicer	19.34
23382 - Ground Support Equipment Worker	20.27
23391 - Gunsmith I	15.48
23392 - Gunsmith II	17.06
23393 - Gunsmith III	18.83
23410 - Heating, Ventilation And Air-Conditioning Mechanic	18.38
23411 - Heating, Ventilation And Air Conditioning Mechanic (Research Facility)	19.30
23430 - Heavy Equipment Mechanic	20.43
23440 - Heavy Equipment Operator	17.87
23460 - Instrument Mechanic	22.82
23465 - Laboratory/Shelter Mechanic	17.99
23470 - Laborer	11.36
23510 - Locksmith	18.04
23530 - Machinery Maintenance Mechanic	23.32
23550 - Machinist, Maintenance	18.59
23580 - Maintenance Trades Helper	14.41
23591 - Metrology Technician I	22.82
23592 - Metrology Technician II	23.80
23593 - Metrology Technician III	24.74
23640 - Millwright	20.67
23710 - Office Appliance Repairer	22.90
23760 - Painter, Maintenance	17.56
23790 - Pipefitter, Maintenance	19.29
23810 - Plumber, Maintenance	18.43
23820 - Pneudraulic Systems Mechanic	18.83
23850 - Rigger	18.83
23870 - Scale Mechanic	17.29
23890 - Sheet-Metal Worker, Maintenance	18.81
23910 - Small Engine Mechanic	17.06
23931 - Telecommunications Mechanic I	18.89
23932 - Telecommunications Mechanic II	20.87
23950 - Telephone Lineman	19.60
23960 - Welder, Combination, Maintenance	18.38
23965 - Well Driller	18.83
23970 - Woodcraft Worker	18.83
23980 - Woodworker	16.43

24000 - Personal Needs Occupations	
24570 - Child Care Attendant	8.56
24580 - Child Care Center Clerk	10.68
24610 - Chore Aide	10.19
24620 - Family Readiness And Support Services Coordinator	12.61
24630 - Homemaker	13.55
25000 - Plant And System Operations Occupations	
25010 - Boiler Tender	20.75
25040 - Sewage Plant Operator	19.88
25070 - Stationary Engineer	20.75
25190 - Ventilation Equipment Tender	14.85
25210 - Water Treatment Plant Operator	19.88
27000 - Protective Service Occupations	
27004 - Alarm Monitor	13.83
27007 - Baggage Inspector	10.85
27008 - Corrections Officer	15.28
27010 - Court Security Officer	16.82
27030 - Detection Dog Handler	13.55
27040 - Detention Officer	15.28
27070 - Firefighter	16.82
27101 - Guard I	10.85
27102 - Guard II	13.55
27131 - Police Officer I	18.64
27132 - Police Officer II	20.71
28000 - Recreation Occupations	
28041 - Carnival Equipment Operator	10.11
28042 - Carnival Equipment Repairer	10.62
28043 - Carnival Equipment Worker	8.38
28210 - Gate Attendant/Gate Tender	14.06
28310 - Lifeguard	12.21
28350 - Park Attendant (Aide)	15.73
28510 - Recreation Aide/Health Facility Attendant	11.48
28515 - Recreation Specialist	17.94
28630 - Sports Official	12.53
28690 - Swimming Pool Operator	15.65
29000 - Stevedoring/Longshoremen Occupational Services	
29010 - Blocker And Bracer	17.70
29020 - Hatch Tender	17.70
29030 - Line Handler	17.70
29041 - Stevedore I	16.90
29042 - Stevedore II	18.56
30000 - Technical Occupations	
30010 - Air Traffic Control Specialist, Center (HFO) (see 2)	35.77
30011 - Air Traffic Control Specialist, Station (HFO) (see 2)	24.66
30012 - Air Traffic Control Specialist, Terminal (HFO) (see 2)	27.16
30021 - Archeological Technician I	18.60
30022 - Archeological Technician II	20.81
30023 - Archeological Technician III	25.48
30030 - Cartographic Technician	25.48
30040 - Civil Engineering Technician	22.83
30061 - Drafter/CAD Operator I	18.60
30062 - Drafter/CAD Operator II	20.81
30063 - Drafter/CAD Operator III	23.21
30064 - Drafter/CAD Operator IV	28.55

30081 - Engineering Technician I		15.98
30082 - Engineering Technician II		18.00
30083 - Engineering Technician III		21.00
30084 - Engineering Technician IV		28.62
30085 - Engineering Technician V		33.81
30086 - Engineering Technician VI		40.89
30090 - Environmental Technician		25.48
30210 - Laboratory Technician		18.92
30240 - Mathematical Technician		25.48
30361 - Paralegal/Legal Assistant I		18.54
30362 - Paralegal/Legal Assistant II		22.98
30363 - Paralegal/Legal Assistant III		28.11
30364 - Paralegal/Legal Assistant IV		34.01
30390 - Photo-Optics Technician		25.48
30461 - Technical Writer I		21.30
30462 - Technical Writer II		26.06
30463 - Technical Writer III		31.52
30491 - Unexploded Ordnance (UXO) Technician I		22.74
30492 - Unexploded Ordnance (UXO) Technician II		27.51
30493 - Unexploded Ordnance (UXO) Technician III		32.97
30494 - Unexploded (UXO) Safety Escort		22.74
30495 - Unexploded (UXO) Sweep Personnel		22.74
30620 - Weather Observer, Combined Upper Air Or Surface Programs	(see 3)	23.21
30621 - Weather Observer, Senior	(see 3)	25.48
31000 - Transportation/Mobile Equipment Operation Occupations		
31020 - Bus Aide		10.71
31030 - Bus Driver		13.94
31043 - Driver Courier		14.96
31260 - Parking and Lot Attendant		10.11
31290 - Shuttle Bus Driver		16.25
31310 - Taxi Driver		10.90
31361 - Truckdriver, Light		16.25
31362 - Truckdriver, Medium		16.82
31363 - Truckdriver, Heavy		17.62
31364 - Truckdriver, Tractor-Trailer		17.62
99000 - Miscellaneous Occupations		
99030 - Cashier		9.30
99050 - Desk Clerk		8.43
99095 - Embalmer		22.74
99251 - Laboratory Animal Caretaker I		8.61
99252 - Laboratory Animal Caretaker II		13.46
99310 - Mortician		22.65
99410 - Pest Controller		12.76
99510 - Photofinishing Worker		11.95
99710 - Recycling Laborer		14.15
99711 - Recycling Specialist		16.30
99730 - Refuse Collector		12.79
99810 - Sales Clerk		11.63
99820 - School Crossing Guard		12.71
99830 - Survey Party Chief		17.75
99831 - Surveying Aide		10.94
99832 - Surveying Technician		14.97
99840 - Vending Machine Attendant		13.90
99841 - Vending Machine Repairer		15.93

99842 - Vending Machine Repairer Helper 13.90

ALL OCCUPATIONS LISTED ABOVE RECEIVE THE FOLLOWING BENEFITS:

HEALTH & WELFARE: $3.59 per hour or $143.60 per week or $622.27 per month

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor; 3 weeks after 10 years, and 4 after 20 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

HOLIDAYS: A minimum of ten paid holidays per year, New Year's Day, Martin Luther King Jr's Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4174)

THE OCCUPATIONS WHICH HAVE NUMBERED FOOTNOTES IN PARENTHESES RECEIVE THE FOLLOWING:

1) COMPUTER EMPLOYEES: Under the SCA at section 8(b), this wage determination does not apply to any employee who individually qualifies as a bona fide executive, administrative, or professional employee as defined in 29 C.F.R. Part 541. Because most Computer System Analysts and Computer Programmers who are compensated at a rate not less than $27.63 (or on a salary or fee basis at a rate not less than $455 per week) an hour would likely qualify as exempt computer professionals, (29 C.F.R. 541.400) wage rates may not be listed on this wage determination for all occupations within those job families. In addition, because this wage determination may not list a wage rate for some or all occupations within those job families if the survey data indicates that the prevailing wage rate for the occupation equals or exceeds $27.63 per hour conformances may be necessary for certain nonexempt employees. For example, if an individual employee is nonexempt but nevertheless performs duties within the scope of one of the Computer Systems Analyst or Computer Programmer occupations for which this wage determination does not specify an SCA wage rate, then the wage rate for that employee must be conformed in accordance with the conformance procedures described in the conformance note included on this wage determination.

Additionally, because job titles vary widely and change quickly in the computer industry, job titles are not determinative of the application of the computer professional exemption. Therefore, the exemption applies only to computer employees who satisfy the compensation requirements and whose primary duty consists of:

(1) The application of systems analysis techniques and procedures, including consulting with users, to determine hardware, software or system functional specifications;

(2) The design, development, documentation, analysis, creation, testing or modification of computer systems or programs, including prototypes, based on and related to user or system design specifications;

(3) The design, documentation, testing, creation or modification of computer programs related to machine operating systems; or
(4) A combination of the aforementioned duties, the performance of which requires the same level of skills. (29 C.F.R. 541.400).

2) APPLICABLE TO AIR TRAFFIC CONTROLLERS ONLY - NIGHT DIFFERENTIAL: An employee is entitled to pay for all work performed between the hours of 6:00 P.M. and 6:00 A.M. at the rate of basic pay plus a night pay differential amounting to 10 percent of the rate of basic pay.

3) AIR TRAFFIC CONTROLLERS AND WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY: If you work at night as part of a regular tour of duty, you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employed (40 hours a week) and Sunday is part of your regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

HAZARDOUS PAY DIFFERENTIAL: An 8 percent differential is applicable to employees employed in a position that represents a high degree of hazard when working with or in close proximity to ordinance, explosives, and incendiary materials. This includes work such as screening, blending, dying, mixing, and pressing of sensitive ordnance, explosives, and pyrotechnic compositions such as lead azide, black powder and photoflash powder. All dry-house activities involving propellants or explosives. Demilitarization, modification, renovation, demolition, and maintenance operations on sensitive ordnance, explosives and incendiary materials. All operations involving regrading and cleaning of artillery ranges.

A 4 percent differential is applicable to employees employed in a position that represents a low degree of hazard when working with, or in close proximity to ordnance, (or employees possibly adjacent to) explosives and incendiary materials which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation, irritation of the skin, minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used. All operations involving, unloading, storage, and hauling of ordnance, explosive, and incendiary ordnance material other than small arms ammunition. These differentials are only applicable to work that has been specifically designated by the agency for ordnance, explosives, and incendiary material differential pay.

** UNIFORM ALLOWANCE **

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost),

reimburse all employees for such cleaning and maintenance at a rate of $3.35 per week (or $.67 cents per day). However, in those instances where the uniforms furnished are made of "wash and wear" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

The duties of employees under job titles listed are those described in the "Service Contract Act Directory of Occupations", Fifth Edition, April 2006, unless otherwise indicated. Copies of the Directory are available on the Internet. A links to the Directory may be found on the WHD home page at http://www.dol.gov/esa/whd/ or through the Wage Determinations On-Line (WDOL) Web site at http://wdol.gov/.

REQUEST FOR AUTHORIZATION OF ADDITIONAL CLASSIFICATION AND WAGE RATE {Standard Form 1444 (SF 1444)}

Conformance Process:

The contracting officer shall require that any class of service employee which is not listed herein and which is to be employed under the contract (i.e., the work to be performed is not performed by any classification listed in the wage determination), be classified by the contractor so as to provide a reasonable relationship (i.e., appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination. Such conformed classes of employees shall be paid the monetary wages and furnished the fringe benefits as are determined. Such conforming process shall be initiated by the contractor prior to the performance of contract work by such unlisted class(es) of employees. The conformed classification, wage rate, and/or fringe benefits shall be retroactive to the commencement date of the contract. {See Section 4.6 (C)(vi)} When multiple wage determinations are included in a contract, a separate SF 1444 should be prepared for each wage determination to which a class(es) is to be conformed.

The process for preparing a conformance request is as follows:

1) When preparing the bid, the contractor identifies the need for a conformed occupation(s) and computes a proposed rate(s).

2) After contract award, the contractor prepares a written report listing in order proposed classification title(s), a Federal grade equivalency (FGE) for each proposed classification(s), job description(s), and rationale for proposed wage rate(s), including information regarding the agreement or disagreement of the authorized representative of the employees involved, or where there is no authorized representative, the employees themselves. This report should be submitted to the contracting officer no later than 30 days after such unlisted class(es) of employees performs any contract work.

3) The contracting officer reviews the proposed action and promptly submits a report of the action, together with the agency's recommendations and pertinent information including the position of the contractor and the employees, to the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, for review. (See section 4.6(b)(2) of Regulations 29 CFR Part 4).

4) Within 30 days of receipt, the Wage and Hour Division approves, modifies, or disapproves the action via transmittal to the agency contracting officer, or notifies the contracting officer that additional time will be required to process the request.

5) The contracting officer transmits the Wage and Hour decision to the contractor.

6) The contractor informs the affected employees.

Information required by the Regulations must be submitted on SF 1444 or bond paper.

When preparing a conformance request, the "Service Contract Act Directory of Occupations" (the Directory) should be used to compare job definitions to insure that duties requested are not performed by a classification already listed in the wage determination. Remember, it is not the job title, but the required tasks that determine whether a class is included in an established wage determination. Conformances may not be used to artificially split, combine, or subdivide classifications listed in the wage determination.

ATTACHMENT J-18

ACRONYM LIST

AA	Atomic Absorption
ACH	Automated Clearing House
ACO	Administrative Contracting Officer
ADEM	Alabama Department of Environmental Management
ADL	Applicable Documents List
AED	Automated External Defibrillator
AEE	Advanced Engineering Environment
AL	Alabama
ANSI	American National Standards Institute
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
ATOMS	Automated Task Order Management System
ATP	Authorization to Proceed
BA	Business Analyst
BICE	Bureau of Immigration and Customs Enforcement
BLM	Bureau of Land Management
BPA	Blanket Purchase Agreement
BS	Bachelor of Science
BTU	British Thermal Units
CAD	Computer-Aided Design
CAIL	CLV Avionics Integration Laboratory
CAM	Computer-Aided Modeling
CAS	Cost Accounting Standards
CASI	Center for AeroSpace Information
CBA	Collective Bargaining Agreements
CBI	Confidential Business Information
CBL	Commercial Bills of Lading
CCR	Central Contractor Registration
CCR	Contractor Cost Report
CCS	Center Chief of Security
CD	Compact Disk
CDR	Critical Design Review
CD-R	Compact Disk-Read Only
CDT	Central Daylight Time
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CFR	Code of Federal Regulations
CM	Configuration Management
CMMI	Capability Maturity Model Integration
CO	Contracting Officer
CoFR	Certification of Flight Readiness

COI	Conflict of Interest
COM	Cost of Money
COOP	Continuity of Operations
COTR	Contracting Officer's Technical Representative
COTS	Commercial-Off-The-Shelf
CPARS	Contractor Performance Assessment Reporting System
CPR	Core Program Requirements
CR	Contractor Reports
CR	Change Request
CSO	Corporate Security Officer
CY	Contract Year
D.C.	District of Columbia
DC	Department's sub-element incurred Costs
DCAA	Defense Contract Audit Agency
DCL	Document Change Log
DDT&E	Design, Development, Test and Evaluation
DLSC	Defense Logistics Services Center
DMMS	Dynamic Memory Management Systems
DO	Priority Rating Symbol (Critical to National Defense)
DoD	Department of Defense
DOL	Department of Labor
DOORS	Dynamic Object-Oriented Requirements System
DOT	Department of Transportation
DPAS	Defense Priorities and Allocations System
DPD	Data Procurement Document
DRD	Data Requirement Description
DRL	Data Requirements List
DS	Department survey Score
DUNS	Data Universal Numbering System
DVD	Digital Video Disk
e.g.	For Example
EAR	Export Administration Regulations
ECLSS	Environmental Control and Life Support System
ECP	Engineering Change Proposal
EEE	Electrical, Electronic and Electromechanical
EEOH	Environmental Engineering and Occupation Health
EIT	Electronic and Information Technology
EMC	Electromagnetic Compatibility
EMI	Electromagnetic Interference
EMS	Environmental Management System
EOD	Entrance On Duty
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
EPM	Excel Pricing Model
ER	Propulsion Systems Department

ES	Engineer/Scientist
ESMD	Exploration Systems Mission Directorate
ESSSA	Engineering, Science Services & Skills Augmentation
ESTS	Engineering, Science, and Technical Services
ET	External Tank
EVM	Earned Value Management
F.O.B.	Free on Board
FAPIIS	Federal Awardee Performance Integrity Information System
FAR	Federal Acquisition Regulation
FC	Fingerprint Card
FDO	Fee Determination Official
FEMP	Federal Energy Management Program
FICA	Federal Insurance Contribution Act
FIPS	Federal Information Processing Standards
FLV	Fictional Launch Vehicle
FM	Flight Module
FMD	Financial Management Division
FPGA	Field Programmable Gate Array
FSCATS	Forth Source Code Analysis Tool Set
FSO	Facility Security Officer
FTE	Full Time Equivalent
FTIR	Fourier Transform Infrared
FUI	Federal Unemployment Insurance
FY	Fiscal Year
G&A	General and Administrative
GAO	Government Accountability Office
GBM	GLAST Burst Monitor
GC	Gas Chromatography
GC-MS	Gas Chromatography-Mass Spectroscopy
GFSSP	Generalized Fluid System Simulation Program
GN&C	Guidance, Navigation, and Control
GPS	Global Positioning System
GS	General Schedule
GSA	General Services Administration
GSE	Ground Support Equipment
HAWOPER	Hazardous Waste Operations and Emergency Response
HAZ MAT	Hazardous Materials
HBCU/OMI	Historically Black Colleges and Universities/Other Minority Institution
HDBK	Handbook
HIL	Huntsville Integration Laboratory
HPGL	Hewlett-Packard Graphic Language
HPLC	High Pressure Liquid Chromatography
HQ	Head Quarters
HR	Hour
HR	Human Resources

HUBZone	Historically Under-Utilized Business Zone
i.e.	That Is
IC	Ion Chromatography
ICAM	Identity Credential and Access Management
ICP	Inductively Coupled Plasma
ICP-MS	Inductively Coupled Plasma-Mass Spectroscopy
IDIQ	Indefinite Delivery/Indefinite Quantity
IDMS	Identity Management System
IEC	Integrated Engineering Capability
IEEE	Institute of Electrical and Electronics Engineers
III	Interstate Identification Index
IPO	Industrial Property Office
IRIS	Incident Reporting Information System
IRS	Internal Revenue Service
ISO	International Standards Organization
ISPT	In-Space Propulsion Technologies
ISS	International Space Station
ISTA	In-Space Technology Assessment
IT	Information Technology
ITAR	International Traffic in Arms Regulations
ITS	Information Technology Security
JD/Q	Job Description/Qualification
JHA	Job Hazard Analysis
JSC	Johnson Space Center
JWST	James Webb Space Telescope
KHz	Kilo Hertz
KW	Kilo Watts
lbf	Pounds Force
lbm/s	Pound Mass per Second
LIDAR	Light Detection and Ranging
LMRU	Lunar and Martian Resource Utilization
LOCAD	Laboratory on a Chip Application and Design
LTC	Lost Time Case
LTIR	Lost Time Incident Rate
M&A	Manufacturing and Assembly
M&P	Materials and Processes
MAF	Michoud Assembly Facility
MAPTIS	Materials and Properties Technical Information System
MAVERIC	Marshall Aerospace Vehicle Representation in C
MBA	Masters of Business Administration
MBSE	Model-Based Systems Engineering
MC	Management and Control
MCMS	Marshall Calibration Management System
MIDL	MSFC Integrated Document Library
MIL	Military

MIUL	Material Identification Usage List
MMH	Mono-Methyl Hydrazine
MMTF	Materials Mechanical Test Facility
MON	Mixed Oxides of Nitrogen
MORR	Marshall Operational Readiness Review
MPD	Marshall Policy Directive
MPLM	Multipurpose Logistics Module
MPR	Marshall Procedural Requirement
MS	Mississippi
MSFC	Marshall Space Flight Center
MSG	Microgravity Science Glovebox
MSRR	Materials Science Research Rack
MWI	Marshall Work Instruction
N/A	Not Applicable
NAC	National Agency Check
NACI	National Agency Check with Inquiries
NAIC	North American Industrial Classification
NAICS	North American Industrial Classification System
NAMS	NASA Account Management System
NASA	National Aeronautics Space Administration
NCIC	National Crime Information Center
NDE	Non Destructive Evaluation
NELAP	National Environmental Laboratory Accreditation Program
NFNMS	NASA Foreign National Management System
NFS	NASA FAR Supplement
NHB	NASA Handbook
NODIS	NASA online directives information system
NPD	NASA Policy Directive
NPDES	National Pollution Discharge Elimination System
NPR	NASA Procedures and Requirements
NRRS	NASA Records Retention Schedule
NSSC	NASA Shared Services Center
NTE	Not to Exceed
NTSR	New Technology Summary Report
O&M	Operations and Maintenance
OCI	Organizational Conflict of Interest
ODC	Other Direct Costs
ODIN	Outsourcing Desktop Initiative for NASA
ODP	Option Decision Package
ODS	Ozone Depleting Substances
OGA	Oxygen Generation Assembly
OMB	Office of Management and Budget
OPM	Offeror’s Pricing Model
OPR	Office of Primary Responsibility
ORCA	On-Line Representations and Certifications Application

ORU	Orbit Replaceable Units
OSDBU	Office of Small Disadvantaged Business Utilization
OSHA	Occupational Safety and Health Administration
OTR	One Time Requirement
OWI	Organizational Work Instructions
PACS	Physical Access Control System
PC	Personal Computer
PCB	Printed Circuit Boards
PCI	Personal Identity Verification Card Issuance
PCP	Personnel training and Certification Plan
PDF	Portable Document Format
PEB	Performance Evaluation Board
PH.D	Doctor of Philosophy
PIN	Personal Identification Number
PIRN	Project Interface Revision Notice
PIV	Personal Identity Verification
PM	Program Manager
PO	Purchase Order
POC	Point of Contact
PP&E	Property, Plant & Equipment
PPA	Pollution Prevention Act
PPE	Personnel Protective Equipment
PR	Purchase Request
PRB	Post Retirement Benefits
PRL	Page Revision Log
PWS	Performance Work Statement
QPS	Quality Performance Standards
QUERYS	Quick and Unusually Easy Repository Search
RCRA	Resource Conservation and Recovery Act
RF	Radio Frequency
RFI	Radio Frequency Induction
RFP	Request For Proposal
RFR	Request For Request
RTF	Return to Flight
S&MA	Safety and Mission Assurance
SAIC	Science Applications International Corporation
SAP	Systems Application and Product
SATERN	System for Administration, Training and Educational Resources for NASA
SAVANT	Solar Array Verification and Analysis Tool
SB	Small Business
SBA	Small Business Administration
SBIR	Small Business Innovative Research
SBIR	Small Business Innovation Research
SBU	Sensitive But Unclassified

SCA	Service Contract Act
SCBA	Self Contained Breathing Apparatus
SCRS	Safety Concerns Reporting System
SDB	Small Disadvantaged Business
SDC	Sum of all individual Department's sub-element incurred Costs
SDVO	Service Disabled Veteran-Owned
SDVOSB	Service-Disabled Veteran-Owned Small Business
SE	Sustaining Engineering
SEB	Source Evaluation Board
SEE	Space Environments and Effect
SEMO	Supply and Equipment Management Office
SEPS	Specialized Engineering & Project Support
SF	Standard Form
SHE	Safety, Health, and Environmental
SIC	Standard Industrial Classification
SIC	Standard Industry Code
SIL	Systems Integration Lab
SIS	Sub-element Initiator Survey
SITF	Systems Integration and Test Facility
SLOCC	Source Lines of Code Count
SME	Subject Matter Expert
SOPs	Standard Operating Procedures
SOW	Statement of Work
SR	Subtask Request
SRB	Solid Rocket Booster
SRM	Solid Rocket Motor
SSA	Source Selection Authority
SSME	Space Shuttle Main Engine
SSN	Social Security Number
SSPPO	Space Science Programs/Projects Office
SSWP	Supervisors Safety Web page
STC	Staffing and Total Compensation
STD	Standard
STE	Special Test Equipment
STI	Scientific and Technical Information
STPPO	Space Transportation Programs/Projects Office
SUI	State Unemployment Insurance
SVOCs	Semi-Volatile Organic Compounds
TA	Technology Area
TAG	Technical Advisory Group
TBD	To Be Determined
TBP	To Be Proposed
TDM	Technology Demonstration Missions
TIN	Taxpayer Identification Number
TN	Technician

TO	Task Order
TOC	Total Organic Content
TOCP	Task Order Change Plan
TOCR	Task Order Change Request
TOP	Task Order Plan
TOR	Task Order Request
TPS	Thermal Protection System
TRIR	Total Recordable Injury Rate
TRL	Technology Readiness Level
TTO	Total Toxic Organics
TX	Texas
U.S.	United States
UPN	Unique Project Number
URL	Uniform Resource Locator
USC	United States Code
USDA	United States Department of Agriculture
USML	U.S. Munitions List
VCS	Voluntary Consensus Standards
VCS	Voluntary Consensus Standards
VOCs	Volatile Organic Compounds
VOSB	Veteran-Owned Small Business
WBS	Work Breakdown Structure
WHC	Waste and Hygiene Compartment
WORF	Window Observational Research Facility
WOSB	Women-Owned Small Business
WRS	Water Recovery System
WSTF	White Sands Test Facility
WYE	Work Year Equivalent
XRCF	X-Ray Calibration Facility
XRF	X-Ray Fluorescence
YR	Year